File name: U5.oil

New file: 12/24/13

Updated: 12/27/13, testing section of the permit has been revised to better match Tables 1, 2, and 5

Updated: 12/30/13 coal terms removed.

Updated: 1/6/14 Permit Template completed for the Amendments of 4/19/12 and 4/24/13

**Terms Last Revised: 6/02/2016**

Terms below are drafted in Permitting Format; and following the template are drafted under the sections of the rule.

§63.9980 through §63.9990 establish applicability or define the subcategories and are not drafted into terms. These sections have been retained for information only; and the definitions have been retained at the end of this file. Terms start at §63.9991.

**Part 63 Subpart UUUUU**

**NESHAP for Coal and Oil Fired Electric Utility Steam Generating Units**

For **OIL**

**Color coated terms:**

**Additional Terms and Conditions**

**Operational Restrictions**

**Monitoring and/or Recordkeeping Requirements**

**Reporting Requirements**

**Testing Requirements**

**Emissions Averaging**

**Low emitting EGUs**

**PM CPMS**

**Note: color is added using the Font A; to remove, “Select all” and change to black.**

## [Emissions Unit ID], [Company Equipment ID]

**Operations, Property and/or Equipment Description:**

* 1. The following EGUs, installed or reconstructed after 5/3/11, are new EGUs:

| **EU ID** | **Operations, Property and/or Equipment Description** |
| --- | --- |
| B004 | Utility boilers |
| B005 |  |
| B006 |  |

* 1. The following EGUs, installed or reconstructed on or before 5/3/11, are existing EGUs:

| **EU ID** | **Operations, Property and/or Equipment Description** |
| --- | --- |
| B001 | Utility boilers |
| B002 |  |
| B003 |  |

* 1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
     1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
     2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  2. Applicable Emissions Limitations and/or Control Requirements
     + 1. The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

|  |  |  |
| --- | --- | --- |
|  | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
| a. | 40 CFR Part 63, Subpart UUUUU  40 CFR 63.9980 through 63.10042 | The emissions from this facility’s electric utility steam generating units (EGUs) shall not exceed the appropriate limits identified in Table 1 for new or reconstructed EGUs or Table 2 for existing EGUs and the EGUs must meet the applicable requirements of this subpart. |
| b. | 40 CFR Part 63, Subpart A  40 CFR 63.1 through 63.16 | Table 9 to Part 63 Subpart UUUUU lists the applicability of the General Provisions to the utility boilers; Table 9 – Applicability of General Provisions to Subpart UUUUU. |
| c. | 40 CFR 60 Subparts D, Da, Db, and/or Dc  40 CFR 60.40 through 60.48c | The emissions from this facility’s electric utility steam generating units (EGUs) shall not exceed the appropriate limits for PM, NOx (NOx & CO option), or SO2 as identified in the appropriate NSPS (based on date of installation and size) and each EGU must meet the requirements of the applicable subpart. |
| d. | 40 CFR Part 60, Subpart A  40 CFR 60.1 through 60.19 | Table 9 to Part 63 Subpart UUUUU lists the applicability of the General Provisions to the utility boilers; Table 9 – Applicability of General Provisions to Subpart UUUUU. |
| e. | OAC rules 3745-31-10 through 20 or  OAC rules 3745-31-21 through 27 | PSD PTI # or  Non-attainment PTI # |
| f. | OAC rule 3745-17-07(A)(1) | The opacity restriction specified by this rule is less stringent than the opacity standard established pursuant to 40 CFR Part 60, Subpart(s) D, Da, Db, or Dc. |
|  | 40 CFR 60.42(a)(2); or  40 CFR 60.42Da(b); or  40 CFR 60.43b(f); or  40 CFR 60.43c(c) | Visible emissions from the steam generating unit shall not exhibit greater than 20 percent opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity |
| g. | OAC rule 3745-17-10(C) | The PM emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart(s) D, Da, Db, or Dc. |
| h. | OAC rule 3745-18 | The SO2 emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart(s) D, Da, Db, or Dc. |
| i. | OAC rule 3745-110-02 **OR**  OAC rule 3745-110-03 | The existing boiler(s) is/are not subject to this rule since it/they are not located in one of the counties listed under OAC rule 3745-110-02(A)(1)(b).  The NOx emission limitation specified by this rule is equivalent to or less stringent than the emission limitation established pursuant to 40 CFR Part 60, Subpart(s) D, Da, Db, or Dc. |

* + - 1. **Additional Terms and Conditions**
         1. For each EGU subject to Part 63 Subpart UUUUU, the permittee shall:

meet each applicable emission limit in Table 1 and 2 to the subpart, except where meeting the requirements for emissions averaging;

meet the applicable work practice standards in Table 3 to the subpart; and

meet each applicable operating limit in Table 4 to this subpart.

[40 CFR 63.9991(a)]

* + - * 1. The alternate SO2 standard in Tables 1 and 2 to Subpart UUUUU may be used if the EGU:

is controlled by wet or dry flue gas desulfurization technology and is installed with a SO2 continuous emissions monitoring system (CEMS); and

the wet or dry flue gas desulfurization system is operated at all times in accordance with 40 CFR 63.10000(b).

[40 CFR 63.9991(c)]

* + - * 1. An initial performance test is required for all pollutants, to demonstrate compliance with the applicable emission limits identified in Table 1 or Table 2 of Part 63 Subpart UUUUU.

[40 CFR 63.63.10000(c)(2)]

* + - * 1. The liquid oil-fired EGUs may qualify for low emission EGU (LEE) status for Hg, HCl, HF, filterable PM, total HAP metals, or individual HAP metals, except where equipped with an acid gas scrubber and having a main stack with a bypass stack exhaust configuration. And a new EGU does not qualify for a LEE for Hg.

[40 CFR 63.63.10000(c)(2)] and [40 CFR 63.10005(h)(1)]

* + - * 1. For existing liquid oil-fired EGUs, an initial performance test conducted in accordance with 40 CFR 63.10005(h), may be used to demonstrate that the EGUs qualify for low emission EGU (LEE) status for Hg, HCl, HF, filterable PM, total HAP metals, or individual HAP metals, except where the EGU is equipped with an acid gas scrubber with a bypass to the exhaust stack. And a new EGU cannot establish a LEE for Hg.

[40 CFR 63.10000(c)(2)] and [40 CFR 63.10005(h)]

* + - * 1. In order to establish and maintain a LEE for **Hg,** a 30-day performance test shall be conducted using Method 30B at least once every 12 calendar months to demonstrate continued LEE status. In order to establish and maintain a LEE for the remaining applicable emission limits identified in Table 1 or Table 2 of Subpart UUUUU, a performance test must be conducted for the pollutant at least once every 36 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(2)(i)]

* + - * 1. Where the liquid oil-fired EGU does not qualify as a LEE for total HAP metals (including Hg), individual HAP metals (including Hg), or filterable particulate matter (PM), for a new EGU, compliance shall be demonstrated through an initial performance test and the EGU shall be monitored using either a particulate matter continuous parametric monitoring system (PM CPMS) or a PM CEMS; or for an existing EGU, continuous compliance may be demonstrated through quarterly performance testing.

[40 CFR 63.10000(c)(2)(ii)]

* + - * 1. Where the existing liquid oil-fired EGU does not qualify as a LEE for hydrogen chloride (**HCl**) or for hydrogen fluoride (HF), initial and continuous compliance may be demonstrated by using an HCl CEMS, an HF CEMS, or an HCl and HF CEMS, installed and operated in accordance with Appendix B to Part 63 Subpart UUUUU. As an alternative, initial and continuous compliance may be demonstrated by conducting an initial and periodic quarterly performance stack tests for HCl and HF. As an alternative, to both monitoring and stack testing for HCl and HF, where the fuel moisture does not exceed 1.0% by weight, the permittee may document the fuel moisture content by measuring or obtaining the records from the supplier and maintaining them on file.

[40 CFR 63.10000(c)(2)(iii)]

* + - * 1. Where the permittee has chosen to demonstrate continuous compliance through quarterly performance testing, a site-specific monitoring plan must be developed that ensures the operations of the EGU remains consistent with the operating conditions maintained during the performance tests.

[40 CFR 63.10000(c)(2)(iii)]

* + - * 1. Where the EGU qualifies as a **limited-use** liquid oil-fired EGU, as defined in 40 CFR 63.10042, the permittee must comply with the performance tune-up work practice standards in Table 3 of Part 63, Subpart UUUUU and the EGU is not subject to the emissions limits in Tables 1 and 2 of the subpart.

[40 CFR 63.10000(c)(2)(iv)]

* + - * 1. The permittee shall develop a site-specific monitoring plan and, if requested, submit it to the appropriate district of local office of the Division of Air Pollution Control at least 60 days before the initial performance evaluation of the CMS. A new monitoring plan is not required where existing monitoring plans for CEMS and CPMS have already been prepared under Appendix B to Part 60 or Part 75, and that meet the requirements of 40 CFR 63.10010. Unless an alternative quality assurance and quality control plan has been approved under the provisions identified in 40 CFR 63.8(f)(4); or the site-specific monitoring plan has been installed, certified, and is operated in accordance with Part 75 or Appendix A or B to Part 63 Subpart UUUU, the provisions of the site-specific monitoring plan shall address the following:

documentation supporting the demonstration that the CMS or sorbent trap monitoring system’s sampling probe or other interface is installed at a location that is representative of the controlled exhaust emissions from each subject EGU (e.g., on or downstream of the last control device) and in accordance with 40 CFR 63.10010(a) or 40 CFR 63.10010(h) for PM CPMS;

performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;

the schedule for conducting initial and periodic performance evaluations;

the performance evaluation procedures and acceptance criteria (e.g., calibrations), including a quality control program meeting the general requirements of 40 CFR 63.8(d);

on-going operation and maintenance procedures, meeting the general requirements of 40 CFR 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

the conditions that define a CMS that is out of control, consistent with 40 CFR 63.8(c)(7)(i); and procedures for responding to out-of-control periods consistent with 40 CFR 40 CFR 63.8(c)(7)(ii) and (c)(8);

the on-going recordkeeping and reporting procedures, meeting the general requirements of 40 CFR 40 CFR 63.10(c), (e)(1), and (e)(2)(i), and specifically as required under Part 63 Subpart UUUUU.

The CMS shall be operated and maintained in accordance with the site-specific monitoring plan and the applicable rule(s) it is based on, as identified above.

[40 CFR 63.10000(d)]

* + - * 1. As part of the demonstration of continuous compliance, periodic tune-ups must be performed on the subject EGU(s) in accordance with 40 CFR 63.10021(e).

[40 CFR 63.10000(e)]

* + - * 1. The permittee shall develop a site-specific continuous monitoring system (CMS) performance evaluation test plan and shall submit a copy to both the Central Office and the District Office or local air agency of the Ohio EPA Division of Air Pollution Control (DAPC) for evaluation and/or approval. A performance evaluation of each CMS shall be conducted in accordance with the approved site-specific performance evaluation test plan. The test evaluation of the CMS(s) shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The site-specific performance evaluation test plan shall require all CMS (systems required by rule) be maintained in continuous operation during process operations. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance (QA) program.

The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance.

The external QA program shall include, at a minimum, provisions for systems audits and validation of instrument calibrations, data collection, sample logging, and documentation of quality control data and field maintenance activities and must also address the following requirements:

each CMS (parameter monitor or sampling probe) shall be installed at a location that accurately measures the exhaust emissions representative of the emissions unit (e.g., on or downstream of the last control device) and accurately measures the process and/or the control device parameters;

performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

performance evaluation procedures and acceptance criteria, including calibration frequency, results, and records.

The permittee shall submit the site-specific performance evaluation test plan to the Central Office and District or local offices of the Ohio EPA DAPC at least 60 days before the performance test or performance evaluation is scheduled to begin, or by a mutually agreed upon (by DAPC Central Office) date. The DAPC may request additional relevant information following the review of a site-specific performance evaluation test plan. All CMS shall be installed, operational, and the data verified, as specified in the NESHAP, either prior to or in conjunction with conducting performance tests required under 40 CFR 63.7.

[40 CFR 63.8(e)(1), (2), and (3)]

* + - * 1. The Director shall notify the permittee of the intention to deny approval of the site-specific test plan within 30 calendar days after receipt of the original plan or within 30 calendar days after receipt of any supplementary information requested by the Director. If the permittee is requesting an alternative test method or alternative method of determining compliance, the written approval of the Administrator of the US. EPA will need to be acquired and submitted, supporting the alternative method of compliance.

[40 CFR 63.7(c)(3)]

* 1. **Operational Restrictions**
     + 1. Except during periods of startup and shutdown, the EGUs shall be operated at all times in compliance with the emission limits identified in Table 1 or 2 of Part 63 Subpart UUUUU; and the EGUs must be operated in accordance with the work practice standards identified in Table 3 to the subpart at all times, including during periods of startup and shutdown.

[40 CFR 63.10000(a)]

* + - 1. The permittee shall operate and maintain the EGUs, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. The determination of whether such operation and maintenance procedures are being used will be based on information available to the Director (or his/her representative) which may include, but is not limited to: monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.10000(b)]

* + - 1. The requirements identified in Table 3 of Part 63 Subpart UUUUU shall be followed during startup and shutdown operations for coal-fired, liquid oil-fired, and solid oil-derived fuel-fired EGUs.

[40 CFR 63.10011(g)] and [40 CFR 63.10005(j)]

* 1. **Monitoring and/or Recordkeeping Requirements**
     + 1. Following the compliance date and where demonstrating compliance through emissions averaging, the permittee shall demonstrate compliance with Subpart UUUUU on a continuous basis by meeting the following requirements:
          1. For each 30- (or 90-) day rolling average period, the permittee shall maintain the records of the calculated average weighted emissions limit, for the existing units participating in the emissions averaging option, in accordance with 40 CFR 63.10009(f) and (g);
          2. For each existing unit participating in the emissions averaging option that is equipped with PM CPMS, the permittee shall maintain the average parameter value at or below the operating limit established during the most recent performance test; and
          3. For each existing unit participating in the emissions averaging option and venting to a common stack configuration containing affected EGUs from other subcategories, the permittee shall maintain the appropriate operating limit for each EGU as specified in Table 4 to Subpart UUUUU.

Any instance where the permittee fails to comply with the continuous monitoring requirements identified above shall be considered a deviation from the NESHAP.

[40 CFR 63.10022]

* + - 1. The continuous monitoring systems for CEMS, PM CPMS, and sorbent trap monitoring systems must meet the following requirements for installation:
         1. For an affected EGU that exhausts to the atmosphere through a single, dedicated stack, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall either be installed in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere.
         2. When an EGU exhausts to a common stack shared with one or more other affected EGUs, but no non-affected units, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall either be installed in the duct leading to the common stack from each unit or installed in the common stack.
         3. When one or more affected EGUs shares a common stack with one or more non-affected units, the CEMS, PM CPMS, and sorbent trap monitoring systems shall either be installed in the ducts leading to the common stack from each affected EGU; or the required monitoring systems may be installed in the common stack and all of the emissions measured at the common stack shall be attributed to the affected EGU(s), i.e., the calculated pollutant emission rate is assigned to each unit that shares the common stack..
         4. If the exhaust configuration of an affected EGU consists of a main stack and a bypass stack, the CEMS, PM CPMS, and sorbent trap monitoring systems shall be installed on both the main stack and the bypass stack; or, if it is not feasible to certify and quality-assure the data from a monitoring system on the bypass stack, the bypass hours must be monitored, recorded, and reported as a deviation from the monitoring requirements.
         5. If the exhaust flue from an affected EGU is configured such that emissions are controlled with a common control device or series of control devices that are discharged to the atmosphere through more than one stack or are fed into a single stack through two or more ducts, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall be installed in:

each of the multiple stacks; or

each of the ducts that feed into the stack; or

one of the multiple stacks or ducts and monitor the flows and dilution rates in all multiple stacks or ducts in order to determine total exhaust gas flow rate and pollutant mass emissions rate in accordance with the applicable limit; or

in the single stack.

* + - * 1. If the exhaust flue from an affected EGU is configured such that emissions are controlled with multiple parallel control devices or multiple series of control devices that are discharged to the atmosphere through more than one stack, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall be installed in each of the multiple stacks; and the hourly flow-weighted average pollutant emission rates for the EGU shall be documented as follows:

the pollutant emission rate shall be calculated at each stack or duct for each hour in which valid data are obtained for all parameters;

the calculated hourly pollutant emission rate at each stack or duct shall be multiplied by the corresponding hourly stack gas flow rate at that stack or duct and the products shall be summed; and the result is divided by the total hourly stack gas flow rate for the EGU, summed across all of the stacks or ducts.

[40 CFR 63.10010(a)]

* + - 1. If an oxygen (O2 ) or carbon dioxide (CO2 ) CEMS is used to convert measured pollutant concentrations to the units of the applicable standard, the O2 or CO2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.,* at the outlet of the EGU and downstream of all emission control devices. The CEMS must be installed, certified, maintained, and operated in accordance with Part 75, however, Part 75 substitute data values cannot be used. Only quality-assured O2 or CO2 data can be used in the emissions calculations.

[40 CFR 63.10010(b)]

* + - 1. If a stack gas flow rate monitor is used either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 1 or 2 of Subpart UUUUU, the monitoring system must be installed, certified, maintained, and operated and on-going quality-assurance testing conducted in accordance with Part 75. Only unadjusted, quality-assured flow rate data can be used in the emissions calculations. Bias adjustment factors to the flow rate data cannot be applied and substitute flow rate data cannot be used in the calculations.

[40 CFR 63.10010(c)]

* + - 1. A moisture monitoring system used to make corrections for stack gas moisture content in converting pollutant concentrations to the units of the applicable standard in Table 1 or 2 of Subpart UUUUU, the system must be installed, certified, maintained, and operated in accordance with Part 75.

[40 CFR 63.10010(d)]

* + - 1. HCl and/or HF CEMS must be installed, certified, maintained, and operated and on-going quality-assurance testing conducted in accordance with Appendix B to Subpart UUUUU. A 30-boiler operating day rolling average HCl and/or HF emission rate shall be calculated and recorded in the units of the standard and updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all the valid hourly HCl or HF emission rates in the preceding 30 boiler operating days and is calculated using Equation A-5 in Appendix A of Subpart UUUUU.

[40 CFR 63.10010(e)]

* + - 1. For liquid oil-fired EGUs, if demonstrating compliance with the HCl and HF emission standards through quarterly stack testing, a site-specific monitoring plan must be developed as provided for in 40 CFR 63.10000(c)(2)(iii) and Table 7 to Subpart UUUUU.

[40 CFR 63.10010(k)]

* + - 1. A Hg CEMS or a sorbent trap monitoring system must be installed, certified, operated, maintained and on-going quality-assurance testing conducted in accordance with Appendix A to Subpart UUUUU.. A 30- (or 90-, if alternate emissions averaging is used) boiler operating day rolling average Hg emission rate must be calculated and recorded, in units of the standard and updated after each new boiler operating day. Each 30- (or 90-) boiler operating day rolling average emission rate shall be calculated in accordance with Section 6.2 of Appendix A, and is the average of all of the valid hourly Hg emission rates in the preceding 30- (or 90-) boiler operating days. Sorbent trap monitoring system data shall be reduced to an hourly basis in accordance with Section 7.1.4.3 of Appendix A.

[40 CFR 63.10010(g)]

* + - 1. PM CPMS, used to demonstrate continuous compliance with an operating limit, must be installed, calibrated, maintained, and operated, and the output of the system recorded as follows:
         1. The PM CPMS must be installed, certified, operated, and maintained in accordance with the procedures in the site-specific monitoring plan developed in accordance with 40 CFR 63.10000(d), and the system must meet the following requirements:

The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of the exhaust gas or representative sample; and the reportable measurement output from the PM CPMS may be expressed as milliamps, stack concentration, or other raw data signal.

The PM CPMS must have a cycle time (*i.e.*, period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

The PM CPMS must be capable, at a minimum, of detecting and responding to particulate matter concentrations of 0.5 mg/acm.

* + - * 1. For a new unit, the initial PM CPMS performance evaluation must be completed no later than October 13, 2012 or within 180 days of initial startup, whichever is later. For an existing unit, the initial performance evaluation must be completed no later than October 13, 2015.
        2. The arithmetic 30-boiler operating day rolling average shall be calculated for all of the hourly average PM CPMS output collected during all nonexempt boiler operating hours and the data must be expressed as milliamps, PM concentration, or other raw data signal value.
        3. PM CPMS data must be collected at all times the EGU is in operation and at a cycle time no longer than 60 minutes. All PM CPMS data collected must be used in assessing compliance with the operating limit, with the exception of data collected during the following periods, where any data collected will not be used in calculations:

during monitoring system malfunctions and repairs associated with monitoring system malfunctions;

during required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments);

during required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions;

during scheduled maintenance as defined in the site-specific monitoring plan;

during periods when the monitoring system is out-of-control (as specified in the site-specific monitoring plan);

during repairs associated with the monitoring system being out-of-control;

during required monitoring system quality assurance or quality control activities conducted during out-of-control periods; and

during periods of startup or shutdown.

The above exceptions must be recorded and included in the annual deviation report.

* + - * 1. Results of PM CPMS system performance audits, the date(s) and duration of malfunction and/or periods when the PM CPMS is out-of-control to the completion of the corrective actions necessary to return the system to operation consistent with the site-specific monitoring plan must be recorded and made available upon request.

[40 CFR 63.10010(h)]

* + - 1. If complying with the PM filterable emissions limit in lieu of metal HAP limits, PM CEMS may be used to demonstrate compliance. The compliance limit is expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable to the EGU as identified in Tables 1 or 2 of Subpart UUUUU. A PM CEMS shall be installed, certified, operated, and maintained, and the output of the CEMS recorded as specified below:
         1. The PM CEMS shall be installed and certified in accordance with the procedures and requirements specified in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to Part 60, using Method 5 at Appendix A-3 to Part 60 and ensuring that the front half filter temperature is maintained at 160° ± 14 °C (320° ± 25 °F).
         2. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).
         3. The PM CEMS must be operated and maintained in accordance with the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to Part 60, where:

a relative response audit (RRA) must be conducted at least annually; and

a relative correlation audit (RCA) must be conducted at least once every 3 years.

* + - * 1. The arithmetic 30-boiler operating day rolling average emissions shall be calculated for all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours.
        2. PM CEMS data must be collected at all times the EGU is in operation and for each hour in which valid data are obtained. The PM CEMS system shall collect and record the hourly average output data for all boiler operating hours with the exception of data collected during the following periods, where any data collected will not be used in calculations:

during monitoring system malfunctions and repairs associated with monitoring system malfunctions;

during required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments);

during required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions;

during periods when the monitoring system is out-of-control (as specified in the site-specific monitoring plan);

during repairs associated with the monitoring system being out-of-control;

during required monitoring system quality assurance or quality control activities conducted during out-of-control periods; and

during periods of startup or shutdown.

The above exceptions must be recorded and included in the annual deviation report.

* + - * 1. Results of PM CEMS system performance audits, the date(s) and duration of malfunction and/or periods when the PM CEMS is out-of-control to the completion of the corrective actions necessary to return the system to operation consistent with the site-specific monitoring plan must be recorded and made available upon request.

[40 CFR 63.10010(i)]

* + - 1. As an alternative to the performance test method specified in this rule, the permittee may choose to comply with the metal HAP emissions limits using CEMS approved in accordance with 40 CFR 63.7(f). If approved to use a HAP metals CEMS, the compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for the EGU(s) in tables 1 or 2. If approved, a HAP metals CEMS shall be installed, certified, operated, and maintained, and the output of the HAP metals CEMS recorded as follows:
         1. The HAP metals CEMS shall be installed and certified in accordance with the procedures and requirements in an approved site-specific test plan as required in 40 CFR 63.7(e).
         2. The reportable measurement output from the HAP metals CEMS must be expressed in units of the applicable emissions limit (*e.g.,* lb/MMBtu, lb/MWh) and in the form of a 30-boiler operating day rolling average.
         3. The HAP metals CEMS shall be operated and maintained in accordance with the procedures and criteria in a site-specific performance evaluation and quality control program plan as required in 40 CFR 63.8(d).
         4. The arithmetic 30-boiler operating day rolling average emissions shall be calculated for all of the hourly average HAP metals CEMS output data collected during all nonexempt boiler operating hours.
         5. HAP metals CEMS hourly average output data must be collected at all times the EGU is in operation and for each hour in which valid data are obtained. The HAP metals CEMS system shall collect and record the hourly average output data for all boiler operating hours with the exception of data collected during the following periods, where any data collected will not be used in calculations:

during monitoring system malfunctions and repairs associated with monitoring system malfunctions;

during required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments);

during required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions;

during periods when the monitoring system is out-of-control (as specified in the site-specific monitoring plan);

during repairs associated with the monitoring system being out-of-control;

during required monitoring system quality assurance or quality control activities conducted during out-of-control periods; and

during periods of startup or shutdown.

The above exceptions must be recorded and included in the annual deviation report.

* + - * 1. Results of HAP metals CEMS system performance audits, the date(s) and duration of malfunction and/or periods when the HAP metals CEMS is out-of-control to the completion of the corrective actions necessary to return the system to operation, consistent with the site-specific performance evaluation and quality control program plan, must be recorded and made available upon request.

[40 CFR 63.10010(j)]

* + - 1. Each affected EGU must be monitored and data collected in accordance with 40 CFR 63.10020 and the site-specific monitoring plan required by 40 CFR 63.10000(d).

[40 CFR 63.10020(a)]

* + - 1. The monitoring system must be operated and data collected at all required intervals and at all times that the affected EGU is in operation, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. Repairs to monitoring systems used to demonstrate compliance with Part 63 Subpart UUUUU must be completed as expeditiously as practicable, to return the monitoring system to operation.

[40 CFR 63.10020(b)]

* + - 1. Data recorded during EGU startup or shutdown, monitoring system malfunctions or out-of-control periods, repair associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities shall not be used in calculations used to report emissions or operating levels. The data collected during all other periods of operation must be used in assessing the operation of the control device and associated control system.

[40 CFR 63.10020(c)]

* + - 1. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements.

[40 CFR 63.10020(d)]

* + - 1. Continuous compliance must be demonstrated with each emissions limit, operating limit, and work practice standard in Tables 1 through 4 to Subpart UUUUU that applies to the EGU, in accordance with the monitoring specified in Tables 6 and 7 and 40 CFR 63.10021(b) through (g).

[40 CFR 63.10021(a)]

* + - 1. Except as otherwise provided in 40 CFR 63.10020(c), if a CEMS are used to measure SO2, PM, HCl, HF, or Hg emissions, or if using a sorbent trap monitoring system to measure Hg emissions, continuous compliance is demonstrated by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO2, O2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or 90-boiler operating day, if alternate emissions averaging is used for Hg) rolling average basis, updated at the end of each new boiler operating day. Equation 8 shall be used to determine the 30- (or 90-, if applicable) boiler operating day rolling average.

Equation 8

n

Boiler operating day average = ∑ Heri **/** n

i=1

Where:

Heri = the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30- (or 90-, if applicable) boiler operating days.

[40 CFR 63.10021(b)]

* + - 1. If PM CPMS data is used to measure compliance with an operating limit in Table 4 to Subpart UUUUU, the PM CPMS output data must be recorded for all periods when the process is operating and the PM CPMS is not out-of-control. Continuous compliance is demonstrated by using all quality-assured hourly average data collected by the PM CPMS for all operating hours, to calculate the arithmetic average operating parameter in units of the operating limit (e.g., milliamps, PM concentration, raw data signal) on a 30 operating day rolling average basis, updated at the end of each new boiler operating day. Equation 9 shall be used to determine the 30-boiler operating day average.

Equation 9

n

Boiler operating day average = ∑ Hpvi **/** n

i=1

Where:

Hpvi = the hourly parameter value for hour i and n is the number of valid hourly parameter values collected over 30 boiler operating days.

[40 CFR 63.10021(c)]

* + - 1. Following an exceedance of the 30-boiler operating day PM CPMS average value from the established operating parameter limit for an EGU subject to the emissions limits in Table 1 to this subpart, the permittee must:
         1. visually inspect the air pollution control device within 48 hours of the exceedance;
         2. if the inspection of the air pollution control device identifies the cause of the exceedance, corrective action must be taken as soon as possible and the PM CPMS must be returned to recording measurements within the established value; and
         3. within 45 days of the exceedance or at the time of the annual compliance test, whichever comes first, a PM emissions compliance test shall be conducted to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit (additional testing is not required for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test).

PM CPMS exceedances of the operating limit for an EGU, subject to the emissions limits in Table 1 of Subpart UUUUU, that lead to more than four required performance tests in any 12-month rolling period constitutes a separate violation.

[40 CFR 63.10021(c)(1) and (2)]

* + - 1. If quarterly performance testing is used to demonstrate compliance with one or more applicable emissions limits in Table 1 or 2 to this subpart:
         1. performance testing may be skipped in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year;
         2. the performance test must be conducted as defined in Table 5 to Subpart UUUUU and the results calculated and converted to units of the applicable emissions standard;
         3. for a liquid oil-fired unit, site-specific monitoring must be conducted in accordance with the requirements of 40 CFR 63.10000(c)(2)(iii), to ensure compliance with the HCl and HF emission limits in Tables 1 and/or 2 to Subpart UUUUU; and
         4. monitoring must meet the general operating requirements provided in 40 CFR 63.10020(a).

[40 CFR 63.10021(d)]

* + - 1. The permittee shall maintain a record of each inspection, documenting the information identified above (“check list” from 40 CFR 63.10021(e)). The following information shall be collected and recorded in an annual report, that, upon request, must be submitted to the Administer of the U.S. EPA or a representative of the Ohio EPA:
         1. the concentrations of CO and NOX in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems;
         2. a description of any corrective actions taken as a part of the combustion adjustment; and
         3. if the unit is physically and legally capable of using more than one type of fuel during the reporting period, the type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment made during the tune up.

[40 CFR 63.10021(e)(8)]

* + - 1. The permittee shall keep the following records for a period of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record:
         1. a copy of each notification and report that is submitted to comply with Part 63 Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted in accordance with the requirements of 40 CFR 63.10(b)(2)(xiv);
         2. records of performance stack tests, fuel analyses, or other compliance demonstrations, and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).
         3. if required or electing to demonstrate compliance by continuously monitoring Hg, HCl, and/or HF emissions, the records required under Appendix A and/or Appendix B must also be maintained.
         4. the following records for each CEMS and CPMS:

the records described in 40 CFR 63.10(b)(2)(vi) through (xi):

each period during which a CMS is malfunctioning or inoperative, including out-of-control periods;

all required measurements needed to demonstrate compliance with a relevant standard, including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report, collected in accordance with and as allowed by 40 CFR 63.10(b)(2)(vii);

all results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

all CMS calibration checks; and

all adjustments and maintenance performed on CMS;

previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3);

request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i); and

records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

* + - * 1. the records required in Table 7 to Part 63 Subpart UUUUU, including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit that applies to each EGU subject to the subpart;
        2. for each EGU subject to an emission limit in Tables 1 or 2 to Part 63 Subpart UUUUU, the following records:

the monthly fuel usage of each EGU, including the type(s) of fuel and amount(s);

if combusting non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1):

records documenting how the secondary material meets each of the legitimacy criteria;

if a fuel has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2; and

if the fuel has received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the records which document how the fuel satisfies the requirements of the petition process; and

for an EGU that qualifies as an LEE under 40 CFR 63.10005(h), the annual records that document that emissions from the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and a statement that there was no change in source operations, including fuel composition and operation of air pollution control equipment, that would cause emissions of the pollutant to increase within the past year;

* + - * 1. if demonstrating compliance through emissions averaging in accordance with with 40 CFR 63.10009, a copy of the emissions averaging implementation plan required in 40 CFR 63.10009(g), all calculations required under 40 CFR 63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with 40 CFR 63.10022;
        2. the occurrence and duration of each startup and/or shutdown;
        3. the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment;
        4. actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation;
        5. the type(s) and amount(s) of fuel used during each startup or shutdown; and
        6. for an EGU qualified as a limited-use liquid oil-fired EGU, records of the type(s) and amount(s) of fuel use in each calendar quarter to document that the capacity factor limitation for that subcategory is met.

These records must be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The remaining 3 years may be kept off-site, but must be made available upon request.

[40 CFR 63.10032] and [40 CFR 63.10033]

* 1. **Reporting Requirements**
     + 1. The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit. It is recommended that the PER is submitted electronically through the Ohio EPA’s “e-Business Center: Air Services” although PERs can be submitted via U.S. postal service or can be hand delivered.

[OAC 3745-15-03(B)(2) and (D)]

* + - 1. The results of performance tests and performance tune-ups must be reported within 60 days after the completion of the performance tests and performance tune-ups. The reports for all subsequent performance tests shall include all the applicable information identified in 40 CFR 63.10031.

[40 CFR 63.10006(j)]

* + - 1. If the first required tune-up is performed as part of the initial compliance demonstration, the date of the tune-up must be reported in hard copy, as specified in 40 CFR 63.10030; and electronically, as specified in 40 CFR 63.10031. The date of each subsequent tune-up must be reported electronically, as specified in 40 CFR 63.10031. If the first tune-up is not conducted as part of the initial compliance demonstration, but is postponed until the next unit outage, the date of that tune-up and all subsequent tune-ups must be reported electronically, in accordance with 40 CFR 63.10031.

[40 CFR 63.10021(e)(9)]

* + - 1. The permittee shall develop and, if requested, submit a site-specific test plan to the Director (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) for evaluation and approval, at least 60 calendar days before the performance test is scheduled to take place and simultaneously with the notification of intention to conduct a performance test, unless the Director agrees upon a different date. The site-specific test plan shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The test plan shall include, at a minimum, the following elements: a test program summary; the test schedule; data quality objectives; and both an internal and external quality assurance (QA) program.

The internal quality assurance (QA) program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (e.g.: sampling and analysis of replicate samples). The external QA program shall include, at a minimum, the following elements:

* + - * 1. provisions for a test method performance audit during the performance test, in order to provide a measure of test data bias;
        2. provisions for systems audits, instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities; and
        3. provisions to provide appropriate notice (60 days), to the Director, of the performance test, performance audit, and systems audit, allowing the regulating agency the opportunity to arrange for their own on-site evaluation.

The performance audits shall consist of blind audit samples, provided by an accredited audit sample provider, which shall be taken and analyzed during each performance test. The Director may request additional relevant information following the receipt and review of the site-specific test plan.

[40 CFR 63.7(b) & (c)]

* + - 1. Following the initial performance test and each sequential required determination and/or demonstration of compliance, the permittee shall submit to the Director (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) the Notification of Compliance Status Report with the applicable NESHAP, signed by the owner or operator or other responsible official who is certifying the accuracy and completeness of the report. The compliance notification shall be postmarked no later than 30 days following the completion of the compliance demonstration for the initial performance test, and again no later than 30 days following the completion of each subsequent required performance test. The Notification of Compliance Status Report shall include the following information:
         1. the NESHAP (applicable subpart) and emissions or other limitation(s) applicable to the emissions unit;
         2. the method(s) that were used to determine compliance with each applicable limitation and/or requirement and the date each compliance demonstration was conducted;
         3. the results of any required performance tests, opacity or visible emission observations, CMS performance evaluations, and/or other monitoring procedures or methods, or inspections that were conducted to demonstrate compliance;
         4. the methods that will be used for determining continuing compliance, including a description of the monitoring, the records maintained of the process and/or equipment parameters, and test methods;
         5. the type and quantity of hazardous air pollutants (or surrogate pollutants, if defined in the NESHAP) emitted by the emissions unit, measured in accordance with the test methods specified in the NESHAP, and reported in the appropriate units and averaging times required to demonstrate compliance;
         6. the analysis demonstrating whether the emissions unit is a major source or an area source and the supporting potential and controlled emissions data to document the determination;
         7. a description of the air pollution control equipment (or control method) for each emission point and the control efficiency (percent) for each control device/method for each HAP; and
         8. a statement, signed by a responsible official, as to whether the affected emissions unit has met the relevant standards, limitations, and/or other requirements of the NESHAP; and if not, the proposed method and time-line for achieving compliance.

A written report of the results of the CMS performance evaluation shall be submitted simultaneously with the results of the performance test required under 40 CFR 63.7; or within 30 days of completion of the performance evaluation. The written report shall include the raw data from the performance evaluation and the results.

Where a COMS is used to determine opacity compliance during any performance test required under the NESHAP, upon the request of the Director, the permittee shall also submit two (or three, if requested) copies of a written report of the results of the COMS performance evaluation at least 15 calendar days before the performance test required under the NESHAP.

[40 CFR 63.8(e)(5)], [40 CFR 63.9(h)], [40 CFR 63.10(e)(1) and (2)], and [OAC 3745-15-04(A)]

* + - 1. The permittee of an EGU(s) with an initial startup date before 4/16/12 should have notified the Director (appropriate Ohio EPA Division of Air Pollution Control District Office or local air agency) or U.S. EPA Administrator, in writing, that the EGU(s) is/are subject to Part 63 Subpart UUUUU not later than 120 calendar days after the effective date; or this report should have been submitted on or before 8/14/12. Any new EGU with a start startup date on or after 4/16/12 shall submit an Initial Notification report no later than 15 days after the date of startup. This report shall (or should have) provide the following information:
         1. the name and address of the owner or operator;
         2. the address (i.e., physical location) of the emissions unit;
         3. an identification of the relevant standard (NESHAP), the applicable limitation(s) or other requirements that is/are the basis of the notification, and the emission unit's compliance date;
         4. a brief description of the nature, size, design, and method of operation of the emissions unit and an identification of the types of emission points subject to the NESHAP and types of hazardous air pollutants emitted; and
         5. a statement of whether the emissions unit is a major source or an area source.

The permittee shall submit the notifications identified in 40 CFR 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to the EGUs by the dates specified in the applicable paragraphs of Part 63 Subpart A.

[63.10030(a), (b) and (c)] and [40 CFR 63.9(b)(2), (4), and (5)]

* + - 1. A Notification of Intent to conduct a performance test must be submitted to the regulating authority (appropriate Ohio EPA Division of Air Pollution Control District Office or local air agency and/or U.S. EPA Administrator) at least 30 days before the performance test is scheduled to begin.

[63.10030(d)]

* + - 1. Following the initial compliance demonstration, identified in 40 CFR 63.10011, the Notification of Compliance Status must be submitted before the close of business on the 60th day following the completion of the compliance demonstration. Unless otherwise identified in 40 CFR 63.9984, for new EGUs the initial compliance demonstration was required to have been completed by 10/13/12 or for a newer EGU within 180 days following startup; and for existing EGUs the initial compliance demonstration must be completed by 10/13/15. The Notification of Compliance Status report, therefore for existing units would need to be submitted initially by 12/12/15; and for a new unit, initially within 60 days of the compliance demonstration that is completed within 180 days of startup. Each Notification of Compliance report (initial and subsequent) must include the following information, as applicable.
         1. a description of each subject EGU(s) including identification of the:

subcategory;

the design capacity;

the air pollution control equipment and control efficiency demonstrated for each applicable pollutant it controls (per 63.9(h)(2)(i)(F));

the fuel(s) burned, including a statement that the fuel is a non-waste under 40 CFR 241.3, and

If more than one fuel is burned, the justification for the selection of fuel(s) burned during the performance test;

* + - * 1. identification of each method used to demonstrate compliance with each applicable emission limit, i.e., through performance testing; fuel moisture analyses; performance testing with operating limits (e.g., use of PM CPMS); CEMS; or a sorbent trap monitoring system;
        2. summary of the results of each performance test and fuel analyses and the calculations conducted to demonstrate compliance including all established operating limits;
        3. Identification of any compliance demonstration using emissions averaging.
        4. a signed certification that each EGU has met all applicable emission limits and work practice standards;
        5. if there has been a deviation from any emission limit, work practice standard, or operating limit, a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation.
        6. in addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following:

a summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

if qualifying for a LEE and conducting stack tests once every 3 years, consistent with 40 CFR 63.10006(b):

the date of the last three stack tests;

a comparison of the emission level achieved in the last three stack tests to the 50% emission limit threshold required in 40 CFR 63.10006(i); and

a statement as to whether there have been any operational changes since the last stack test that could increase emissions; and

certifications of compliance signed by a responsible official stating that:

each EGU complies with the requirements in 40 CFR 63.10021(a) to demonstrate continuous compliance.” and

no secondary materials that are solid waste were combusted in any affected unit.

[40 CFR 63.9(h)(2)(ii)], [40 CFR 63.10030(e)], [40 CFR 63.10005(k)], and [40 CFR 63.9984]

[40 CFR 63.10030 through 63.10033]

* + - 1. The permittee shall submit semiannual reports that contain the information identified in 40 CFR 63.10031 and Table 8 to Subpart UUUUU. If required or electing to continuously monitor Hg, HCl, and/or HF emissions, the electronic reports must also be submitted at the specified frequency and as required under Appendix A and/or Appendix B to the subpart.

[40 CFR 63.10031(a)] and [40 CFR 63.10021(f)]

* + - 1. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), each compliance report must be submitted semiannually and according to the following requirements:
         1. The first compliance report shall cover the period beginning on the compliance date specified in 40 CFR 63.9984, i.e. 4/16/12 or upon startup for a new EGU and 4/16/15 for an existing EGU, and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date.
         2. The first compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date.
         3. Each subsequent compliance report must cover the next semiannual reporting period from January 1 through June 30 or July 1 through December 31.
         4. The semiannual compliance reports must be postmarked or submitted electronically no later than July 31 and January 31, whichever date is the first date following the end of the reporting period.
         5. For each affected EGU that is subject to permitting regulations under Part 70 or Part 71, where the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A) that are different from the dates above, the first and subsequent semiannual compliance reports may be submitted in accordance with the dates established in the existing permit.

[40 CFR 63.10031(b) and (e)]

* + - 1. The semiannual compliance reports must contain the following information:
         1. The summary report required by 40 CFR 63.10(e)(3)(vi), entitled “Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance” shall be included in the semiannual compliance report and shall contain the following information:

the company name and address of the affected source;

an identification of each hazardous air pollutant monitored at the affected source;

the beginning and ending dates of the reporting period;

a brief description of the process units (e.g., subcategory, design capacity, fuel, control equipment);

the emission standards and operating parameter limitations specified in Subpart UUUUU for each affected EGU;

the monitoring equipment manufacturer(s) and model number(s);

the date of the latest certification and/or audit for each CMS;

the total operating time of each EGU during the reporting period;

an emission data summary and summary of monitored control system parameters, including:

the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases),

the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and

a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

a CMS performance summary (CEMS, PM CPMS, and control system parameter monitors), including:

the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases),

the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and

a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

a description of any changes in CMS, processes, or controls since the last reporting period;

* + - * 1. The total fuel use by each EGU subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
        2. Identify any new types of fuel burned during the reporting period. If a new fuel(s) was/were burned, the date of the performance test was conducted for each.
        3. The date of the most recent tune-up for each EGU subject to the requirement to conduct a performance tune-up according to 40 CFR 63.10021(e); and the date of the most recent burner inspection if it was not done every 36 (or 48) months and was delayed until the next scheduled unit shutdown.
        4. Excess emissions or exceedances of process or control system parameters shall include all the information required in 40 CFR 63.10(c)(5) through (c)(13) and 40 CFR 63.8(c)(7) and (8):

the date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

the date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7);

the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in Subpart UUUUU, that occurs during startups, shutdowns (emissions standards not apply during startup shutdown, 63.10000(a)), and malfunctions of the EGUs;

the specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in Subpart UUUUU, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

the nature and cause of any malfunction (if known);

the corrective action taken or preventive measures adopted;

the nature of the repairs or adjustments to the CMS that was inoperative or out of control;

the total process operating time during the reporting period;

the date and time (start and end time) identifying each period during which the CMS was out of control and descriptions of corrective actions taken;

the date a CMS fails a performance test audit, relative accuracy audit, relative accuracy test audit, or linearity test audit;

* + - * 1. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
        2. If there is a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description of each type of malfunction which caused or may have caused any exceedance to an applicable emission limitation.
        3. the name, title, and signature of the responsible official who is certifying the accuracy of the report; and
        4. the date of the report.

[40 CFR 63.10031(c), (d), and (g)]

* + - 1. Within 60 days after the date of completing each performance test, the results of the performance tests required by Part 63 Subpart UUUUU must be submitted to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of U.S. EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. **A**t the discretion of the delegated authority, these reports, including the confidential business information, must also be submitted to the delegated authority in the format specified by such state.

[40 CFR 63.10031(f)]

* + - 1. Within 60 days after the date of completing each CEMS (SO2 , PM, HCl, HF, and Hg) performance evaluation test, as defined in 40 CFR 63.2 and required by Part 63 Subpart UUUUU, the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) must be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (*http://www.epa.gov/ttn/chief/ert/index.html*). Only RATA data compounds listed on the ERT Web site are subject to this requirement. **A**t the discretion of the Ohio EPA, these RATAs shall also be submitted to Central Office and the delegated district or local office, in the format specified by the Director. The permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and Subpart UUUUU.

[40 CFR 63.10031(f)(1)]

-----------------------------------------------

If submitting Confidential Business Information:

* + - 1. Within 60 days after the date of completing each performance test, the results of the performance tests required by Part 63 Subpart UUUUU must be submitted to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of U.S. EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. **If** the permittee is claiming that some of the information being submitted for performance tests is confidential business information (CBI), a complete ERT file, including information claimed to be CBI, must be submitted on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to U.S EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described above. **A**t the discretion of the Ohio EPA, these reports, including the confidential business information, must also be submitted to the delegated office, in the format specified by the Director.

[40 CFR 63.10031(f)]

* + - 1. Within 60 days after the date of completing each CEMS (SO2 , PM, HCl, HF, and Hg) performance evaluation test, as defined in 40 CFR 63.2 and required by Part 63 Subpart UUUUU, the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) must be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (*http://www.epa.gov/ttn/chief/ert/index.html*). Only RATA data compounds listed on the ERT Web site are subject to this requirement. If the permittee is claiming that some of the information being submitted for RATAs is confidential business information (CBI), a complete ERT file, including information claimed to be CBI, must be submitted on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to U.S. EPA and the same ERT file with the CBI omitted to EPA via CDX as described above. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. **A**t the discretion of the Ohio EPA, these RATAs shall also be submitted to Central Office and the delegated district or local office, in the format specified by the Director. The permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and Subpart UUUUU.

[40 CFR 63.10031(f)(1)]

-------------------------------------------

* + - 1. For a PM CEMS, PM CPMS, or approved alternative monitoring using a HAP metals CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, quarterly reports must be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The appropriate electronic reporting form in CEDRI must be used or an alternate electronic file may be provided that is consistent with EPA's reporting form output format. For each reporting period, the quarterly reports must include all of the calculated 30-boiler operating day rolling average values derived from the CEMS and PM CPMS.

[40 CFR 63.10031(f)(2)]

* + - 1. Reports for an SO2 CEMS, a Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to Subpart UUUUU and 40 CFR 63.10021(f).

[40 CFR 63.10031(f)(3)]

* + - 1. The semiannual compliance reports and the initial notification of compliance status shall be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The appropriate electronic reporting form in CEDRI must be used or an alternate electronic file may be provided that is consistent with EPA's reporting form output format.

[40 CFR 63.10031(f)(4)]

* + - 1. All other reports required by Part 63 Subpart UUUUU and not identified in paragraphs 63.10030(f)(1) through (4) must be sent to the Administrator at: EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507. If acceptable to both the Administrator and the permittee, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs 63.10030 (f)(1), (2), and (3) in paper format.

[40 CFR 63.10031(f)(5)] and [40 CFR 63.13(a)]

* 1. **Testing Requirements**
     + 1. For each subject EGU, the permittee shall demonstrate initial compliance for each applicable emissions limit in Table 1 or 2 of Part 63 Subpart UUUUU through performance testing. Where there are two emissions limits for a particular pollutant, in lb/MMBtu, based on heat input, and a limit in lb/MWh, based on an electrical output, compliance may be demonstrated for either emission limit. One or more of the following activities may be required to be conducted in conjunction with performance testing, during the compliance demonstration:
          1. collection of hourly electrical load data (megawatts);
          2. establishment of operating limits according to 40 CFR 63.10011 and Tables 4 and 7 to Part 63 Subpart UUUUU; and
          3. CMS performance evaluations.

[40 CFR 63.10005(a)] and [40 CFR 63.10011(a)]

* + - 1. The permittee shall demonstrate initial compliance no later than October 13, 2015 for the existing EGUs and no later than October 13, 2012 or within 180 days of startup for new EGUs.

[40 CFR 63.9984(f) and [40 CFR 63.10005(g)]

* + - 1. Unless otherwise identified in the rule, the initial performance test shall include three 1-hour test runs (during normal process operating conditions) using the approved performance test methods identified in Table 5 of Subpart UUUUU. The required parametric data used to establish the required operating limits (identified in Table 4 to the Subpart), shall be collected during the performance tests. If choosing or required to comply with an electrical output-based emission limit, the hourly electrical load data must be collected during each performance test.

[40 CFR 63.10005(a)(1) and (2)]

* + - 1. Where demonstrating initial compliance using either a CMS that measures HAP concentrations directly (*i.e.*, an Hg, HCl, or HF CEMS, or a sorbent trap monitoring system) or an SO2 or PM CEMS, the initial performance test consists of 30 boiler operating days of data collected by a certified CEMS or monitoring system, and by the initial compliance demonstration date specified in 40 CFR 63.10005. The 30-boiler operating day CMS performance test must demonstrate compliance with the applicable Hg, HCl, HF, PM, or SO2 emissions limit identified in Table 1 or 2 of Part 63 Subpart UUUUU.

[40 CFR 63.10005(a)(2)]

* + - 1. If the EGU is subject to an operating limit in Table 4 to Subpart UUUUU, initial compliance with the HAP metals or filterable PM emission limits(s) is demonstrated through performance stack tests, where the operating limit is established. If electing to use a PM CPMS to demonstrate continuous performance, a site-specific operating limit shall be established in accordance with Table 4, Table 6, and 40 CFR 63.10007. Only the parametric data recorded during successful performance tests (*i.e.*, tests that demonstrate compliance with the applicable emissions limits) may be used to establish an operating limit.

[40 CFR 63.10011(b)]

* + - 1. For a liquid oil-fired unit where quarterly stack testing is used to demonstrate compliance with the HCl and/or HF standard(s) and site-specific parameter monitoring is used to demonstrate continuous performance, a site-specific operating limit must be established in accordance with Tables 4 and 6 to Subpart UUUUU, and 40 CFR 63.10007. Only the parametric data recorded during successful performance tests (*i.e.*, tests that demonstrate compliance with the applicable emissions limits) may be used to establish an operating limit.

[40 CFR 63.10011(b)]

* + - 1. Where using a CEMS or sorbent trap monitoring systems to measure a HAP (e.g., Hg or HCl) directly, the first 30-boiler operating day (or the 90-boiler operating day, if emissions averaging is used for Hg) rolling average emission rate obtained with certified CEMS after the applicable date in 40 CFR 63.9984 (or, if applicable, prior to that date, as described in 40 CFR 63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10011(c)(1)]

* + - 1. Where using a CEMS to measure SO2 or PM emissions, the first 30 boiler operating day average emission rate obtained with certified CEMS after the applicable date in 40 CFR 63.9984 (or, if applicable, prior to that date, as described in 40 CFR 63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable SO2 or filterable PM emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10011(c)(2)]

* + - 1. For proposed LEE EGUs, the results of the performance testing described in 40 CFR 63.10005(h) are used to determine initial compliance with the applicable emission limit(s) in Table 1 or 2 to Subpart UUUUU and to determine whether the EGU qualifies for LEE status.

[40 CFR 63.10011(d)]

* + - 1. The permittee must determine the fuel whose combustion produces the least uncontrolled emissions, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. This determination can take into account safety considerations.

[40 CFR 63.10011(f)]

* + - 1. As part of the initial compliance demonstration, the permittee shall conduct a performance tune-up for each subject EGU according to 40 CFR 63.10021(e) and Table 3 to Part 63Subpart UUUUU. For existing EGUs without neural networks the permittee shall conduct an initial tune-up on or before 10/13/15. For existing EGUs employing neural network combustion controls the permittee shall conduct an initial tune-up on or before 10/13/16, as allowed by 40 CFR 63.1005(f). For new EGUs the permittee shall have conducted and recorded an initial tune-up on or before 10/13/12. If a tune-up occurs prior to the date required by Part 63 Subpart UUUUU, the permittee shall maintain adequate records to demonstrate compliance has been met.

[40 CFR 63.10005(e) and (f)] and [40 CFR 63.9984]

* + - 1. The first periodic performance tune-up of the EGU(s) shall be conducted as part of the initial compliance demonstration. Notwithstanding this requirement, the first burner inspection may be delayed until the next scheduled unit outage provided the requirements of 40 CFR 63.10005 are met. Subsequently, an inspection of the burner must be performed at least once every 36 calendar months; unless the EGU employs neural network combustion optimization during normal operations, then an inspection of the burner and combustion controls must be performed at least once every 48 calendar months.

As applicable to each EGU, the performance tune-up should include:

* + - * 1. Inspection of the burner and combustion controls and cleaning or replacement of any components of the burner or combustion controls, as necessary, upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

burner or combustion control component parts needing replacement that affect the ability to optimize NOX and CO must be installed within 3 calendar months after the burner inspection; and

burner or combustion control component parts that do not affect the ability to optimize NOX and CO may be installed on a schedule determined by the permittee;

* + - * 1. Inspection of the flame pattern with any adjustments to the burner or combustion controls necessary to optimize the flame pattern (the adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type);
        2. Evaluate windbox pressures and air proportions, with any needed adjustments or repair to dampers, actuators, controls, and sensors;
        3. Inspection of the system controlling the air-to-fuel ratio and ensuring that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O2 probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;
        4. Optimize combustion to minimize generation of CO and NOX . This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NOX optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles; and
        5. While operating at full load or the predominantly operated load, the concentration of CO and NOX in the effluent stream is measured in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Portable CO, NOX and O2 monitors may be used for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system.

[40 CFR 63.10021(e)(1) through (7)]

* + - 1. The performance test used to demonstrate initial compliance with the applicable emissions limits in Tables 1 and/or 2 shall be conducted in accordance with 40 CFR 63.10007 and Table 5 to Part 63 Subpart UUUUU. Test data and results from a performance test conducted prior to the date on which compliance is required, as specified in 40 CFR 63.9984, may be used to demonstrate initial compliance provided that the following conditions are fully met:
         1. for a performance test based on stack test data, the test was conducted no more than 12 calendar months prior to the date on which compliance is required as specified in 40 CFR 63.9984;
         2. for a performance test based on data from a certified CEMS or sorbent trap monitoring system, the test consists of all valid CMS data recorded in the 30-boiler operating days immediately preceding that date;
         3. the performance test was conducted in accordance with all applicable requirements in 40 CFR 63.10007 and Table 5 to Part 63 Subpart UUUUU;
         4. a record of all parameters needed to convert pollutant concentrations to units of the emission standard (e.g., stack flow rate, diluent gas concentrations, hourly electrical loads) is available for the entire performance test period; and
         5. for each performance test based on stack test data, records have been maintained to document and/or certify that the EGU configuration, control devices, and fuel(s) have remained consistent with the same conditions for the same during the performance test.

[40 CFR 63.10005(b)]

* + - 1. For certain liquid oil-fired units, where it is required as part of the initial compliance demonstration to establish operating limits using PM CPMS and site-specific monitoring, they shall be established in accordance with 40 CFR 63.10010 and Table 4 to Part 63 Subpart UUUUU.

[40 CFR 63.10005(c)]

* + - 1. Where using a CMS for compliance with an emission limit or to establish an operating limit, the CMS must pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified and has continuously met the on-going quality-assurance (QA) requirements of the applicable federal rules, and also meets the applicable requirements of 40 CFR 40 CFR 63.10010(b) through (h), an additional performance evaluation of the CMS is not required.

[40 CFR 63.10005(d)]

* + - 1. Initial compliance may be demonstrated with the applicable SO2, HCl, or HF emissions limit in Table 1 or 2 to Subpart UUUUU through the use of an SO2, HCl, or HF CEMS installed and operated in accordance with Part 75 or Appendix B to Subpart UUUUU. Compliance with a filterable PM emission limit in Table 1 or 2 to Subpart UUUUU may also be demonstrated through use of a PM CEMS installed, certified, and operated in accordance with 40 CFR 63.10010(i). Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see 40 CFR 63.10007(e)), meets the applicable SO2, PM, HCl, or HF emissions limit in Table 1 or 2 to Subpart UUUUU. Equation 19-19 of Method 19 in Appendix A-7 to Part 60 must be used to calculate the 30-boiler operating day average emissions rate; and where Ehj in Equation 19-19 must be in the same units of measure as the applicable HCl or HF emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10005(d)(1)]

* + - 1. Where Hg CEMS or a sorbent trap monitoring system is/are used to demonstrate compliance with mercury (Hg) limit in Tables 1 or 2 to Subpart UUUUU, the permittee shall demonstrate initial compliance no later than October 13, 2015 for the existing EGUs and no later than October 13, 2012 or within 180 days of startup for new EGUs. Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS or sorbent trap monitoring system data, expressed in units of the standard (see Section 6.2 of Appendix A of Subpart UUUUU), meets the applicable Hg emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10005(d)(3)]

* + - 1. For affected liquid oil-fired EGUs, where demonstrating compliance with the applicable emission limits for HCl or HF listed in Table 1 or 2 to Subpart UUUUU through quarterly performance testing and continuous monitoring with a CMS the permittee shall:
         1. demonstrate initial compliance no later than October 13, 2015 for the existing EGUs and no later than October 13, 2012 or within 180 days of startup for new EGUs;
         2. demonstrate continuous compliance with the CMS site-specific operating limit that corresponds to the results of the performance test demonstrating compliance with the HCl or HF emission limit; and
         3. repeat the performance test annually for the HCL or HF emissions limit and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

[40 CFR 63.10005(d)(4)]

* + - 1. If the fuel moisture content of the oil is no greater than 1.0% by weight, the initial and ongoing compliance demonstration for HCl and HF shall include the following requirements:
         1. the moisture content of each shipment of fuel oil shall be measured if the fuel arrives on a batch basis; or
         2. the fuel moisture content shall be measured daily if the fuel arrives on a continuous basis; or
         3. the fuel supplier shall provide a fuel moisture certification it shall be maintained and provided upon request.

[40 CFR 63.10005(i)(1) through (3)]

* + - 1. If the fuel moisture content of the oil is no greater than 1.0% by weight, one of the following methods may be used to determine fuel moisture content:
         1. ASTM D95-05 (Reapproved 2010), “Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation,” or
         2. ASTM D4006-11, “Standard Test Method for Water in Crude Oil by Distillation,” including Annex A1 and Appendix A1.
         3. ASTM D4177-95 (Reapproved 2010), “Standard Practice for Automatic Sampling of Petroleum and Petroleum Products,” including Annexes A1 through A6 and Appendices X1 and X2, or
         4. ASTM D4057-06 (Reapproved 2011), “Standard Practice for Manual Sampling of Petroleum and Petroleum Products,” including Annex A1.

[40 CFR 63.10005(i)(4)]

* + - 1. If the fuel moisture content of the oil is no greater than 1.0% by weight, one of the following methods shall be used to obtain fuel moisture samples:
         1. ASTM D4177-95 (Reapproved 2010), “Standard Practice for Automatic Sampling of Petroleum and Petroleum Products,” including Annexes A1 through A6 and Appendices X1 and X2, or
         2. ASTM D4057-06 (Reapproved 2011), “Standard Practice for Manual Sampling of Petroleum and Petroleum Products,” including Annex A1.

[40 CFR 63.10005(i)(5)]

* + - 1. Where the moisture content of the liquid fuel exceed 1.0% by weight, the permittee shall meet the following requirements:
         1. HCl and HF emissions testing must be conducted quarterly and monitor site-specific operating parameters shall be monitored as required per 40 CFR 63.10000(c)(2)(iii); or
         2. CEMS for HCl and/or HF shall be used.

[40 CFR 63.10005(i)(6)]

***Low emitting EGUs*.**

* + - 1. An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, HF, filterable PM, total HAP metals or individual HAP metals if the performance test data collected meets the requirements of 40 CFR 63.10005(h) and if those data demonstrate the following:
         1. for all pollutants except Hg, performance test emissions results are less than 50% of the applicable emissions limits in Table 1 or 2 to Part 63 Subpart UUUUU for all the required testing for 3 consecutive years; or
         2. for Hg emissions from existing EGUs, either:

the average emissions are less than 10% of the applicable Hg emissions limit in Table 2 (expressed either in units of lb/TBtu or lb/GWh); or

the potential Hg mass emissions are 29.0 pounds or less per year and the EGU is in compliance with the applicable Hg emission limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh).

New EGUs do not qualify for the LEE status for Hg.

[40 CFR 63.10005(h)(1)]

* + - 1. In order to demonstrate that an EGU qualifies for LEE status for any pollutant with the exception of Hg, the permittee shall conduct all of the required performance tests described in 40 CFR 63.10007 using two times the minimum sample volume specified in Table 1 or 2 of Subpart UUUUU. The test data shall be converted to the units of the applicable standard in accordance with the instructions identified in 40 CFR 63.10007(e) and Table 5 to the subpart.

[40 CFR 63.10005(h)(2)]

* + - 1. In order for an existing unit to qualify for LEE status for Hg, a performance test shall be conducted for a 30-boiler operating day using Method 30B in Appendix A-8 to Part 60. The Method 30B sampling probe tip shall be located at a point within the 10% centroidal area of the duct and shall meet Method 1 in Appendix A-1 to Part 60. At least 3 nominally equal length test runs shall be conducted over the 30-boiler operating day test period. Mercury emissions data must be collected continuously over the entire test period (except when changing sorbent traps or performing required reference method QA procedures) and under all process operating conditions. A pair of sorbent traps may be used to sample the stack gas for no more than 10 days. The LEE status for Hg may be assessed in terms of the lb/TBtu or lb/GWh emission limit in Table 2 to the subpart or in terms of the annual Hg mass emissions limit (29 lbs/yr). The following data shall be collected during the 30-boiler operating day test period:
         1. Depending on whether the LEE status for Hg is assessed in terms of the lb/TBtu or lb/GWh emission limit in Table 2 or in terms of the annual Hg mass emissions limit of 29.0 lb/year, some or all of the following data must be collected during the 30-boiler operating day test period (see 40 CFR 63.10005(h)(3)(iii)):

diluent gas (CO2 or O2) data, using either Method 3A in Appendix A-3 to Part 60 or a diluent gas monitor that has been certified according to Part 75;

stack gas flow rate data, using either Method 2, 2F, or 2G in Appendices A-1 and A-2 to Part 60, or a flow rate monitor that has been certified according to Part 75;

stack gas moisture content data, using either Method 4 in Appendix A-1 to Part 60, or a moisture monitoring system that has been certified according to Part 75. Alternatively, an appropriate fuel-specific default moisture value from 40 CFR 75.11(b) may be used in the calculations; or, under 40 CFR 75.66, the Administrator may approve the use of a default moisture value for non-coal-fired units; and

hourly electrical load data (megawatts), from facility records.

* + - * 1. If using CEMS to measure CO2 (or O2) concentration, the flow rate, and/or the moisture, hourly average values of each parameter must be recorded throughout the 30-boiler operating day test period. If opting to use EPA reference methods rather than CEMS for any parameter, at least one representative test run must be performed on each operating day of the test period, using the applicable reference method.
        2. The average Hg concentration in µg/m3 (dry basis) for the 30-boiler operating day performance test shall be calculated as the arithmetic average of all Method 30B sorbent trap results; and the average values of the CO2 or O2 concentration, stack gas flow rate, stack gas moisture content, and electrical load must be calculated for the test period. These results must be converted as follows:

To express the test results in units of lb/TBtu, the average Hg concentration and diluent gas values must be used the calculations and procedures found in 40 CFR 63.10007(e).

To express the test results in units of lb/GWh, Equations A-3 and A-4 in Section 6.2.2 of Appendix A to Subpart UUUUU must be used, replacing the hourly values “Ch”, “Qh”, “Bws” and “(MW)h” with the average values of these parameters from the performance test.

To calculate pounds of Hg per year, one of the following methods must be used:

Multiply the average lb/TBtu Hg emission rate (determined according to 40 CFR 63.10005(h)(3)(iii)(A) by the maximum potential annual heat input to the unit (TBtu), which is equal to the maximum rated unit heat input (TBtu/hr) times 8,760 hours. If the maximum rated heat input value is expressed in units of MMBtu/hr, multiply it by 10−6 to convert it to TBtu/hr; or

Multiply the average lb/GWh Hg emission rate (determined according to 40 CFR 63.10005(h)(3)(iii)(B) by the maximum potential annual electricity generation (GWh), which is equal to the maximum rated electrical output of the unit (GW) times 8,760 hours. If the maximum rated electrical output value is expressed in units of MW, multiply it by 10−3 to convert it to GW; or

If an EGU has a federally-enforceable permit limit on either the annual heat input or the number of annual operating hours, the calculations in 40 CFR 63.10005(h)(3)(iii)(C)(1) may be modified by replacing the maximum potential annual heat input or 8,760 unit operating hours with the permit limit on annual heat input or operating hours (as applicable).

[40 CFR 63.10005(h)(3)]

* + - 1. For a group of affected EGUs that vent to a common stack, the LEE status may either be assessed for the units individually by performing a separate emission test of each unit in the duct leading from the unit to the common stack, or a single emission test may be performed in the common stack. If the common stack testing option is chosen, the EGU units in the configuration qualify for LEE status if:
         1. The emission rate measured at the common stack is less than 50% (10% for Hg) of the applicable emission limit in Table 1 or 2; or
         2. For Hg (existing EGUs), the applicable emission limit in Table 2 is met and the potential annual mass emissions, calculated according to 40 CFR 63.10005(h)(3)(iii) (with some modifications), are less than or equal to 29.0 pounds times the number of EGUs sharing the common stack. The calculations must be bases on the combined heat input capacity of all EGUs sharing the stack (*i.e.*, either the combined maximum rated value or, if applicable, a lower combined value restricted by permit conditions or operating hours).

[40 CFR 63.10005(h)(4)]

* + - 1. For an affected EGU with a multiple stack or duct configuration, in which the exhaust stacks or ducts are downstream of all emission control devices, a separate emission test must be performed in each stack or duct and the EGU qualifies for LEE status if:
         1. The emission rate, based on all test runs performed at all of the stacks or ducts, is less than 50% (10% for Hg) of the applicable emission limit in Table 1 or 2; or
         2. For Hg (existing EGUs), the applicable Hg emission limit in Table 2 is met and the potential annual mass emissions, calculated according to 40 CFR 63.10005(h)(3)(iii) using the average Hg emissions rate from the performance test runs, are less than or equal to 29.0 pounds.

[40 CFR 63.10005(h)(5)]

***Subsequent Performance Tests***

* + - 1. For affected EGUs that have met the LEE requirements of 40 CFR 63.10005(h), the performance test shall be repeated once every 3 years and once every year for Hg, and in accordance with Table 5 to Subpart UUUUU and 40 CFR 63.10007. If subsequent emissions testing results show an EGU does not meet the LEE eligibility requirements (for non-mercury LEEs emissions equal or exceed of 50% of the applicable emission limit; or for a Hg LEE emissions equal or exceed of 10% of the emission limit or the potential Hg emissions exceed 29.0 pounds per year), the LEE status is lost and the following procedures shall be followed:
         1. For all pollutant limits except for Hg, emissions testing shall be conducted quarterly, except where the boiler is operated less than 168 hours in the quarter (per 40 CFR 63.10021(d)(1)).
         2. For Hg, a Hg CEMS or a sorbent trap monitoring system shall be installed, certified, maintained, and operated in accordance with Appendix A of Subpart UUUUU and within 6 calendar months of losing LEE eligibility. Until the Hg CEMS or a sorbent trap monitoring system is installed, certified, and operating, Hg emissions testing shall be conducted quarterly, except as otherwise provided in 40 CFR 63.10021(d)(1).
         3. Three calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria are required in order to reestablish LEE status.

[40 CFR 63.10006(b) and (h)]

* + - 1. Where using PM CPMS to monitor continuous performance with an applicable emission limit as provided for under 40 CFR 63.10000(c), all applicable performance tests shall be conducted every year in accordance with Table 5 to Subpart UUUUU and 40 CFR 63.10007.

[40 CFR 63.10006(a)]

* + - 1. Where the EGU does not qualify for the LEE and is not using PM CPMS or PM CEMS, the permittee shall conduct all periodic emissions tests for filterable PM, individual HAP metals, or total HAP metals in accordance with Table 5 to Subpart UUUUU, 40 CFR 63.10007, and 40 CFR 63.10000(c), except where the boiler is operated less than 168 hours in a quarter (per 40 CFR 63.10021(d)(1)).

[40 CFR 63.10006(c)]

* + - 1. Where the liquid-oil fired EGU does not qualify for the LEE and is not using HCl CEMS and/or HF CEMS, the permittee shall conduct all quarterly HCl and/or HF emissions tests in accordance with Table 5 to the Subpart UUUUU and 40 CFR 63.10007, except where the boiler is operated less than 168 hours in a quarter (per 40 CFR 63.10021(d)(1)) and shall conduct monitoring under the site-specific plan, as provided for in 40 CFR 63.10000(c)(2)(iii).

[40 CFR 63.10006(e)]

* + - 1. Where performance tests are required at least every 3 calendar years, they must be completed within 35 to 37 calendar months after the previous performance test. Where performance tests are required at least every year, they must be completed within 11 to 13 calendar months after the previous performance test. And where performance tests are required at least quarterly, they must be completed within 80 to 100 calendar days after the previous performance test, except where the boiler is operated less than 168 hours during any quarter. A compliance demonstration conducted through emissions averaging, under 40 CFR 63.10009, does not change the frequency of the appropriate performance stack tests.

[40 CFR 63.10006(f) and (g)] and [40 CFR 63.10021(d)(1)]

* + - 1. The permittee shall conduct performance tune-ups in accordance with 40 CFR 63.10021(e) and at the following frequency:
         1. for EGUs not employing neural network combustion optimization during normal operation, each performance tune-up specified in 40 CFR 63.10021(e) must be conducted no more than 36 calendar months after the previous performance tune-up; or
         2. for EGUs employing neural network combustion optimization systems during normal operation, each performance tune-up specified in 40 CFR 63.10021(e) must be conducted no more than 48 calendar months after the previous performance tune-up; or
         3. for existing affected EGUs where a tune-up occurred prior to April 16, 2012, adequate records have been maintained to show that the tune-up met the requirements of the Subpart UUUUU standards, and the EGU is not employing neural network combustion optimization during normal operation, the permittee has up to 42 calendar months (3 years from promulgation plus 180 days) after the compliance date specified in 40 CFR 63.9984 (42 months after April 16, 2015) to conduct the initial tune-up, if meeting the applicable provisions in 40 CFR 63.7(a)(2); or
         4. for existing affected EGUs where a tune-up occurred prior to April 16, 2012, adequate records have been maintained to show that the tune-up met the requirements of the Subpart UUUUU standards, and employing neural network combustion optimization systems during normal operation, the permittee has up to 54 calendar months (48 months from promulgation plus 180 days) after the compliance date specified in 40 CFR 63.9984 (54 months after April 16, 2015) to conduct the initial tune-up, if meeting the applicable provisions in 40 CFR 63.7(a)(2).

[40 CFR 63.10006(i)] and [40 CFR 63.10005(f)]

***Methods used for Performance testing (§63.10007)***

* + - 1. The permittee shall develop or shall have developed a site-specific test plan in accordance with the requirements in 40 CFR 63.7(c). Except as otherwise provided in Part 63 Subpart UUUUU, all required performance tests shall be conducted in accordance with 40 CFR 63.7(d), (e), (f), and (h).

[40 CFR 63.10007(a)]

* + - 1. Where CEMS (Hg, HCl, HF, SO2, other) are used to determine compliance with a 30-boiler operating day rolling average emission limit, data must be collected during all EGU (subject to Subpart UUUUU) operating conditions, including startups and shutdowns.

[40 CFR 63.10007(a)(1)], [40 CFR 63.10011(g)], and [Table 3 to Subpart UUUUU]

* + - 1. When establishing operating limits with a PM CPMS to demonstrate compliance with a PM or non-Hg metals emissions limit or when demonstrating compliance through the performance test methods in lieu of installing CEMS, the EGU must be operated at the maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. The maximum normal operating load will be considered to be between 90% and 110% of the design capacity of the EGU; however, the operating load should be representative of site-specific normal operations during each test run if the EGU is never operated at a 90% plus capacity.

[40 CFR 63.10007(a)(2)]

* + - 1. For establishing operating limits with particulate matter continuous parametric monitoring system (PM CPMS) to demonstrate compliance with a PM or non-Hg metals emissions limit, operate the EGU must be operated at maximum normal operating load conditions during the performance test period. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run.

[40 CFR 63.10007(a)(3)]

* + - 1. Each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data, sorbent trap monitoring system data, and 30-boiler operating day Hg emission tests for LEE qualification) shall be conducted in accordance with the requirements identified in Table 5 to Part 63 Subpart UUUUU.

[40 CFR 63.10007(b)]

* + - 1. If the filterable PM method is used to comply with the PM emission limit and a PM CPMS is used to demonstrate continuous performance, as provided for in 40 CFR 63.10000(c), operating limit(s) shall be established in accordance with 40 CFR 63.10011(b), 40 CFR 63.10023, and Tables 4 and 6 to Part 63 Subpart UUUUU. If an EGU is operated at a load(s) other than the load under which the EGU has been performance tested, additional testing must be conducted at the other load(s) to determine and document the operating limits at the alternative load and to demonstrate compliance.

[40 CFR 63.10007(c)]

* + - 1. Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, a minimum of 3 separate test runs shall be conducted for each performance test, as specified in 40 CFR 63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 1 or 2 of Part 63 Subpart UUUUU.

[40 CFR 63.10007(d)]

* + - 1. In order to determine compliance with the applicable emission limits in Table 1 or 2 to Part 63 Subpart UUUUU, the test results from performance testing shall be applied as follows:
         1. Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, if the measured results for any pollutant are below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), the method detection level itself shall be used as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.
         2. If the limits are expressed in lb/MMBtu or lb/TBtu, the F-factor methodology and equations in Sections 12.2 and 12.3 of EPA Method 19 of Appendix A-7 to Part 60 shall be used to convert the part per million (ppm) test results to the appropriate units. In cases where an appropriate F-factor is not listed in Table 19-2 of Method 19, the F-factors from Table 1 in Section 3.3.5 of Appendix F to Part 75, or F-factors derived using the procedures found in Section 3.3.6 of Appendix **F** to Part 75 may be used.
         3. The following factors should be used to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable Method 19 equations:

multiply SO2 ppm by 1.66 × 10−7;

multiply HCl ppm by 9.43 × 10−8;

multiply HF ppm by 5.18 × 10−8;

multiply HAP metals concentrations (mg/dscm) by 6.24 × 10−8; and

multiply Hg concentrations (µg/scm) by 6.24 × 10−11.

[40 CFR 63.10007(e)(1) and (2)]

* + - 1. If a CEMS or sorbent trap monitoring system are used for compliance with the Hg standard, Equation A-2 or A-3 in Appendix A of Part 63 Subpart UUUUU shall be used, as applicable. In all other cases an equation that has the general form of Equation A-2 or A-3 should be used, defining Ch as the average SO2, HCl, or HF concentration in ppm or the average HAP metals concentration in mg/dsc, and replacing the value of K with:
         1. 1.66 × 10−7 lb/scf-ppm for SO2;
         2. 9.43 × 10−8 lb/scf-ppm for HCl (if an HCl CEMS is used);
         3. 5.18 × 10−8 lb/scf-ppm for HF (if an HF CEMS is used); or
         4. 6.24 × 10−8 lb-scm/mg-scf for HAP metals and defining Ch as the average HAP metals concentration in mg/dscm
         5. 6.24 × 10−8 lb-scm/mg-scf for HCl and HF when performance stack tested, and defining Ch as the average SO2, HCl, or HF concentration in ppm.

Equations A-2 and A-3 from Appendix A of Subpart UUUUU are identified below from Sections 6.2.2.1:

6.2.2.1 Equations A-2 and A-3 to calculate the Hg mass emissions for each operating hour in which valid data are obtained for all parameters, using Equation A-2 for wet-basis measurements of Hg concentration or Equation A-3 for dry-basis measurements, as applicable:

Mh = K x Ch x Qh (Equation A-2) *wet-basis measurements of Hg concentration*

Where:

Mh = Hg mass emission rate for the hour (lb/h)

K = Units conversion constant, 6.24 × 10−11 lb-scm/µg-scf,

Ch = Hourly average Hg concentration, wet basis (µg/scm)

Qh = Stack gas volumetric flow rate for the hour (scfh).

(Note: Use unadjusted flow rate values; bias adjustment is not required)

Mh = K x Ch x Qh (Equation A-3) *dry-basis measurements of Hg concentration*

Where:

Mh = Hg mass emission rate for the hour (lb/h)

K = Units conversion constant, 6.24 × 10−11 lb-scm/µg-scf.

Ch = Hourly average Hg concentration, dry basis (µg/dscm).

Qh = Stack gas volumetric flow rate for the hour (scfh)

( Note: Use unadjusted flow rate values; bias adjustment is not required).

Bws = Moisture fraction of the stack gas, expressed as a decimal (equal to % H2 O/100)

These calculations require stack gas volumetric flow rate (scfh) and in some cases moisture content data (see 40 CFR 40 CFR 63.10005(h)(3) and 63.10010).

In order to determine compliance with emission limits expressed in lb/MWh or lb/GWh, the pollutant mass emission rate measured during the performance test must be calculated to units of lb/h. If the applicable emission limit is in units of lb/GWh, Equation A-4 in Appendix A to Subpart UUUUU shall be used to calculate the pollutant emission rate in lb/GWh. In this calculation, (M)h is defined as the calculated pollutant mass emission rate for the performance test (lb/h), and (MW)h is defined as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, the 103 term is omitted from Equation A-4 to determine the pollutant emission rate in lb/MWh.

6.2.2.2 Equation A-4 to calculate the emission rate for each unit or stack operating hour in which valid data are obtained for all parameters.

Eho = Mh / (MW)h x 103 (Equation A-4) *on an output basis*

Where:

Eho = Electrical output-based Hg emission rate (lb/GWh).

Mh = Hg mass emission rate for the hour, from Equation A-2 or A-3 of this section, as applicable (lb/h).

(MW)h = Gross electrical load for the hour, in megawatts (MW).

103 = Conversion factor from megawatts to gigawatts.

These calculations and any records necessary to demonstrate that the performance tests were completed in accordance with Subpart UUUUU and they have demonstrated compliance with the applicable emission limits identified in Tables 1 or 2 of Subpart UUUUU shall be submitted to the appropriate district or local air agency of the Ohio EPA Division of Air Pollution Control upon request.

[40 CFR 63.10007(e) and (f)]

***PM CPMS***

* + - 1. During the initial performance test of a liquid oil-fired EGU or any such subsequent performance test that demonstrates compliance with the filterable PM, individual HAP metals or total HAP metals limit, including Hg, in Table 1 or 2 of Subpart UUUUU using PM CPMS, all hourly average output values (e.g., milliamps, stack concentration, or other raw data signal) from the PM CPMS shall be recorded for the periods corresponding to the test runs (e.g., nine 1-hour average PM CPMS output values for three 3-hour test runs).

[40 CFR 63.10023(a)]

* + - 1. Where demonstrating continuous compliance using PM CPMS, the operating limit shall be determine as follows. After each repeated performance test either the existing operating limit must be re-verified or a new operating limit must be established.
         1. For an existing EGU, the operating limit shall be determined based on the highest 1-hour average PM CPMS output value recorded during the performance test.
         2. For a new EGU, the operating limit shall be determined as follows:

If the PM performance test demonstrates that the PM emissions do not exceed 75% of the emissions limit, the average PM CPMS value recorded during the PM compliance test shall be used; the milliamp equivalent of zero output from the PM CPMS, and the average PM result of the compliance test shall be used to establish the operating limit.

The operating limit shall be calculated by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 compliance test using the following procedures:

The PM CPMS instrument zero output is determined with one of the following procedures.

Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

The zero point can also can be obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when the process is not operating, but the fans are operating or the EGU is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

If none of the steps above are possible, a zero output value provided by the manufacturer must be used.

The PM CPMS instrument average (*x*) in milliamps, and the average of the corresponding three PM compliance test runs (*y*), is determined using Equations 10.

\_ n

x = 1/n ∑ Xi Equation 10A

i=1

\_ n

y = 1/n ∑ Yi Equation 10B

i=1

Where:

Xi = the PM CPMS data points for run i of the performance test,

Yi = the PM emissions value (in lb/MWh) for run i of the performance test, and

n = the number of data points.

With the PM CPMS instrument zero expressed in milliamps, the three run average PM CPMS milliamp value, and the three run average PM emissions value (in lb/MWh) from the compliance runs, determine a relationship of PM lb/MWh per milliamp is determined using Equation 11.

R = y / (x – z) Equation 11

Where:

R = the relative PM lb/MWh per milliamp for the PM CPMS,

y = the three run average PM lb/MWh,

x = the three run average milliamp output from the PM CPMS, and

z = the milliamp equivalent of the instrument zero determined in **(a)** above.

The source specific 30-day rolling average operating limit is determined using the PM lb/MWh per milliamp value from Equation 11 in Equation 12, below. This sets the operating limit at the PM CPMS output value corresponding to 75% of the emission limit.

OL = z + (0.75 x L) / R Equation 12

Where:

OL = the operating limit for the PM CPMS on a 30-day rolling average, in milliamps,

L = the EGU PM emissions limit in lb/MWh,

z = the instrument zero in milliamps, determined from **(a)** above, and

R = the relative PM lb/MWh per milliamp for the PM CPMS, from Equation 11.

If the PM compliance test demonstrates the PM emissions exceed 75% of the applicable emissions limit, the average PM CPMS value recorded during the PM compliance test demonstrating compliance with the PM limit will be used to establish the operating limit.

The operating limit shall be determined by averaging the PM CPMS milliamp output corresponding to the three PM performance test runs that demonstrate compliance with the emission limit using Equation 13.

n

Oh = 1/n ∑ Xi Equation 13

i=1

Where:

Xi = the PM CPMS data points for all runs i,

n = the number of data points, and

Oh = the site specific operating limit, in milliamps.

The PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

The PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to two times the allowable emission limit. If the PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times the allowable emission limit.

During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, all milliamp output values from the PM CPMS must be recorded and averaged for the periods corresponding to the compliance test runs.

For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signal corresponding to each PM compliance test run.

The process and control equipment must be operated and maintained such that the 30 operating day average PM CPMS output does not exceed the operating limit determined above.

[40 CFR 63.10023(b) and (c)]

***Emissions Averaging***

* + - 1. The permittee may use emissions averaging, in accordance with 40 CFR 63.10009, as an alternative to meeting the requirements of 40 CFR 63.9991 for filterable PM, SO2 , HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis if:
         1. there are more than one existing EGU in the same subcategory, located at one or more contiguous properties, belonging to a single major industrial grouping, and which are under common control of the same person (or persons under common control); and
         2. CEMS (or sorbent trap monitoring systems for determining Hg emissions) or quarterly emissions testing are used for demonstrating compliance.

Compliance by emissions averaging can be demonstrated among the existing EGUs in the same subcategory, if the averaged Hg emissions for EGUs in the “unit designed for coal ≥ 8,300 Btu/lb” subcategory are equal to or less than 1.0 lb/TBtu or 1.1E-2 lb/GWh, or if the averaged emissions of individual, other pollutants from other subcategories of these EGUs are equal to or less than the applicable emissions limit in Table 2 in accordance with the procedures identified in 40 CFR 63.10009.

[40 CFR 63.10009(a)(1)]

* + - 1. Except for Hg emissions from EGUs in the “unit designed for coal ≥ 8,300 Btu/lb” subcategory, the averaging time for emissions averaging for pollutants is 30 days (rolling daily) using data from CEMS or a combination of data from CEMS and manual performance testing. The averaging time for emissions averaging for Hg from EGUs in the “unit designed for coal ≥ 8,300 Btu/lb” subcategory is 90 days (rolling daily) using data from CEMS, sorbent trap monitoring, or a combination of monitoring data and data from manual performance testing. For the purposes of this paragraph, 30- (or 90-day) group boiler operating days is defined as a period during which at least one unit in the emissions averaging group has operated 30 (or 90) days. The weighted average emissions rate must be calculated for the group in accordance with the procedures identified in 40 CFR 63.10009, using the data from all units in the group including any that operate fewer than 30 (or 90) days during the preceding 30 (or 90) group boiler days.
         1. the EGU emissions averaging group may meet either the heat input basis (MMBtu or TBtu, as appropriate for the pollutant) or gross electrical output basis (MWh or GWh, as appropriate for the pollutant).
         2. within each EGU emissions averaging group the averaging cannot be calculated on a mixed heat input / heat output bases.
         3. emissions averaging may be used for EGUs in different subcategories if the units vent to the atmosphere through a common stack (see 63.10009(m)).

[40 CFR 63.10009(a)(2)]

* + - 1. The following equations shall be used when performing calculations for EGU emissions averaging group(s):

*Group eligibility equations.*

Equation 1a:

p n m p n m

WAERm = **{** [∑ [∑ (Hermi x Rmmi)]p] + ∑ (Teri x Rmti) **}** **/** **{** [∑ [∑ (Rmmi]p +∑ Rmti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Hermi = Hourly emissions rate (e.g., lb/MMBtu, lb/MWh) from CEMS or sorbent trap monitoring for hour i;

Rmmi = Maximum rated heat input or gross electrical output of unit i in terms of heat input or gross electrical output;

Teri = Emissions rate from most recent test of unit i in terms of lb/heat input or lb/gross electrical output;

Rmti = Maximum rated heat input or gross electrical output of unit i in terms of lb/heat input or lb/gross electrical output;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

Equation 1b; calculation based on steam generation:

p n m p n m

WAERm = **{**[∑ [∑ (Hermi x Smmi x Cfmi)]p] + ∑ (Teri x Smti x Cfti)**}** **/** **{**[∑ [∑ (Smmi x Cfmi]p +∑ Smti x Cfti**}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Hermi = Hourly emissions rate (e.g., lb/MMBtu, lb/MWh) from CEMS or sorbent trap monitoring for hour i;

Smmi = maximum steam generation in units of pounds from unit i that uses CEMS or sorbent trap monitoring;

Cfmi = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring;

Teri = Emissions rate from most recent test of unit i in terms of lb/heat input or lb/gross electrical output;

Smti = maximum steam generation in units of pounds from unit i that uses emissions testing;

Cfti = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

[40 CFR 63.10009(b)(1)]

* + - 1. Equation 2a or 2b shall be used to calculate the 30-boiler operating day rolling average emissions for pollutants other than Hg. This calculation for the weighted 30-boiler operating day rolling average emissions rate must be completed daily.

Equation 2a:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Rmi)]p] + ∑ (Teri x Rti) **}** **/** **{** [∑ [∑ (Rmi]p +∑ Rti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate (e.g., lb/MMBtu, lb/MWh) from unit i's CEMS for the preceding 30-group boiler operating days;

Rmi = hourly heat input or gross electrical output from unit i for the preceding 30-group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Rti = Total heat input or gross electrical output of unit i for the preceding 30-boiler operating days;

p = number of EGUs in emissions averaging group that rely on CEMS or sorbent trap monitoring;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

Equation 2b; calculation based on steam generation:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Smi x Cfmi)]p] + ∑(Teri x Sti x Cfti) **}** **/** **{** [∑ [∑ (Smi x Cfmi]p +∑ Sti x Cfti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate (e.g., lb/MMBtu, lb/MWh) from unit i's CEMS for the preceding 30-group boiler operating days;

Smi = steam generation in units of pounds from unit i that uses CEMS for the preceding 30-group boiler operating days;

Cfmi = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS from the preceding 30 group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Sti = steam generation in units of pounds from unit i that uses emissions testing;

Cfti = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing;

p = number of EGUs in emissions averaging group that rely on CEMS or sorbent trap monitoring;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

* + - 1. Equation 3a or 3b shall be used to calculate the 90-boiler operating day rolling average emissions for Hg emissions from EGUs in the “coal-fired unit not low rank virgin coal” subcategory. This calculation for the weighted 90-boiler operating day rolling average emissions rate must be completed daily.

Equation 3a:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Rmi)]p] + ∑ (Teri x Rti) **}** **/** **{** [∑ [∑ (Rmi]p +∑ Rti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate from unit i's CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days;

Rmi = hourly heat input or gross electrical output from unit i for the preceding 90-group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Rti = Total heat input or gross electrical output of unit i for the preceding 90-boiler operating days;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over the 90-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

Equation 3b; calculation based on steam generation:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Smi x Cfmi)]p] + ∑(Teri x Sti x Cfti) **}** **/** **{** [∑ [∑ (Smi x Cfmi)]p +∑ Sti x Cfti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate from unit i's CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days;

Smi = steam generation in units of pounds from unit i that uses CEMS or a Hg sorbent trap monitoring for the preceding 90-group boiler operating days;

Cfmi = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring from the preceding 90-group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Sti = steam generation in units of pounds from unit i that uses emissions testing;

Cfti = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over the 90-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

[40 CFR 63.10009(b)(3)]

***Separate stack requirements***

* + - 1. Should the Administrator require approval, the permittee shall submit the proposed emissions averaging plan and supporting data to the Administrator at least 120 days before April 16, 2015. If the Administrator requires approval of the plan, emissions averaging cannot be used to demonstrate compliance until the Administrator approves the emissions averaging plan.

[40 CFR 63.10009(f)]

* + - 1. For a group of two or more existing EGUs in the same subcategory that each vent to a separate stack, filterable PM, SO2, HF, HCl, non-Hg HAP metals, and/or Hg emissions may be averaged to demonstrate compliance with the limits in Table 2 to Subpart UUUUU if the following requirements have been met:
         1. For each existing EGU in the averaging group,

the emissions rate achieved during the initial performance test, for the HAP being averaged, must not exceed whichever is earlier:

the emissions level that was being achieved 180 days after April 16, 2015 (10/13/15); or

the emissions level measured during the emissions testing completed to support the emissions averaging plan (following plan approval, if required); or

the emissions level that was being achieved on the date that emissions averaging was first used to demonstrate compliance; or

The control technology employed during the initial performance test is:

not less effective than the design efficiency of the emissions control technology employed 180 days after April 16, 2015 (10/13/15); or

not less effective than the design efficiency of the emissions control technology employed on the date emissions averaging is first used to demonstrate compliance, whichever is earlier;

* + - * 1. The weighted-average emissions rate from the existing EGUs, participating in the emissions averaging option, are in compliance at all times with the limits in Table 2 to Subpart UUUUU, following the earliest of the following dates:

the performance testing compliance date, 180 days after April 16, 2015, (10/13/15); or

the date of completion of the emissions measurements used to support the emissions averaging plan (following plan approval, if required), or

the date that emissions averaging was first used to demonstrate compliance.

* + - * 1. The EGUs included in any emissions averaging group shall demonstrate initial compliance at the maximum normal operating load of each EGU during the initial performance tests. The required emissions monitoring must be conducted for 30 days of boiler operation and the required manual performance testing must be conducted in order to calculate an initial weighted average emissions rate using the CEMS and performance testing results as follows:

Using Equation 1a of 40 CFR 63.10009(b), the maximum weighted average emissions rates of filterable PM, HF, SO2, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging option must be demonstrated not to exceed the emissions limits in Table 2 to Subpart UUUUU.

If heat input or gross electrical output cannot be monitored, and the EGU generates steam for purposes other than generating electricity, Equation 1b of 40 CFR 63.10009(b) may be used as an alternative to using Equation 1a, to demonstrate that the maximum weighted average emissions rates of filterable PM, HF, SO2, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging group do not exceed the emission limits in Table 2 to Subpart UUUUU.

* + - * 1. The weighted average emissions rate must be determined in units of the applicable emissions limit on a 30 day rolling average basis, or 90 day rolling average basis for Hg, as follows:

Equation 2a or 3a of 40 CFR 63.10009(b) must be used to calculate the weighted average emissions rate using the actual heat input or gross electrical output for each existing EGU participating in the emissions averaging option.

If heat input or gross electrical output cannot be monitored, Equation 2b or 3b of 40 CFR 63.10009(b) may be used as an alternative to using Equation 2a, to calculate the average weighted emission rate using the actual steam generation from the EGUs participating in the emissions averaging option.

The first averaging period begins on 30 days (or 90 for Hg) after February 16, 2015 or the date compliance through emissions averaging begins, whichever is earlier.

* + - * 1. If an EGU in the emissions averaging group uses CEMS (or a sorbent trap monitor for Hg emissions) to demonstrate compliance, those data must be used to determine the 30 (or 90) group boiler operating day rolling average emissions rate.
        2. If manual emissions testing is used to demonstrate compliance for one or more EGUs in the emissions averaging group, the results from the most recent performance test must be used to determine the 30 (or 90) day rolling average emissions rate. CEMS or sorbent trap data may be used in combination with data from the most recent manual performance test in calculating the 30 (or 90) group boiler operating day rolling average emissions rate.
        3. An emissions averaging plan shall be developed and implemented, for compliance demonstrated through emissions averaging, in accordance with the following procedures and requirements:

The following information must be contained in the implementation plan for all of the EGUs included in a compliance demonstration through emissions averaging:

The identification of all existing EGUs in the emissions averaging group, including for each either the applicable HAP emission level or the control technology installed as of 180 days after February 16, 2015, or the date on which the emissions measurements used to support the emissions averaging plan were completed (if the Administrator does not require submission and approval of the emissions averaging plan), or the date that emissions averaging was initially used for compliance, whichever is earlier; and the date emissions averaging is being requested to commence;

The process weighting parameter (heat input, gross electrical output, or steam generated) that will be monitored for each averaging group;

The specific control technology or pollution prevention measure to be used for each emission EGU in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple EGUs, the identification of each;

The means of measurement (e.g., CEMS, sorbent trap monitoring, manual performance test) of filterable PM, SO2, HF, HCl, individual or total non-Hg HAP metals, or Hg emissions in accordance with the requirements in 40 CFR 63.10007 and to be used in the emissions averaging calculations; and

A demonstration that emissions averaging can produce compliance with each of the applicable emission limit(s) in accordance with 40 CFR 63.10009(b)(1).

If the Administrator requests the plan to be submitted for review and approval, a complete implementation plan must be submitted at least 120 days before April 16, 2015 (12/17/14). If the Administrator requests the plan to be submitted for review and approval, his/her approval must be received before compliance through emissions averaging can be implemented.

The Administrator shall use following criteria in reviewing and approving or disapproving the plan:

Whether the content of the plan includes all of the information specified in 40 CFR 63.10009(j)(1); and

Whether the plan presents information sufficient to determine that compliance will be achieved and maintained.

The Administrator shall not approve an emissions averaging implementation plan containing any of the following provisions:

Any averaging between emissions of different pollutants or between units located at different facilities; or

The inclusion of any EGUs other than an existing unit in the same subcategory.

[40 CFR 63.10009(c) through (j)]

***Common stack requirements***

* + - 1. For a group of two or more existing affected EGUs, each of which vents through a single common stack, emissions may be averaged to demonstrate compliance with the limits in Table 2 to Subpart UUUUU if the following conditions are met:
         1. For a group of two or more existing EGUs in the same subcategory and which vent through a common emissions control system to a common stack that does not receive emissions from units in other subcategories or categories, the EGUs in such averaging group may be treated as a single existing unit for purposes of compliance with Part 63 Subpart UUUUU.
         2. For all other groups of EGUs vented to a common stack, manual performance tests man be conducted according to procedures specified in 40 CFR 63.10007 in the common stack to demonstrate compliance. If emissions from the single stack include affected EGUs participating (and qualifying for) emissions averaging and emissions from other units not included in the emissions averaging (e.g., in a different subcategory) or other nonaffected sources, the units not included in the emissions averaging and the nonaffected sources must be shut down or their emissions vented to a different stack during the performance test. Alternatively, a performance test may be conducted for the combined emissions in the common stack with all units operating and the combined emissions can be demonstrated to meet the most stringent emissions limit; or CEMS or sorbent trap monitoring can be used to demonstrate that the combined emissions comply with the most stringent emissions limit on a continuous basis.

[40 CFR 63.10009(k) through (m)]

* + - 1. The common stack of a group of two or more existing EGUs in the same subcategory may be treated as a single stack and can be included in an emissions averaging group for the separate stack requirements identified in 63.10009(c).

[40 CFR 63.10009(n)]

***Methods Copied from Subpart UUUUU Tables 1 & 2, fill in appropriate limits***

* + - 1. Compliance with the Emission Limitations and/or Control Requirements specified in Section b) of these terms and conditions shall be determined in accordance with the following methods:
         1. Opacity Limitation:

Visible emissions from the steam generating unit shall not exhibit greater than 20 percent opacity, as a six-minute average, except for one 6-minute period per hour of not more than 27% opacity

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

[40 CFR 60.42(a)(2)]; [40 CFR 60.42Da(b)]; [40 CFR 60.43b(f)]; or [40 CFR 60.43c(c)]

* + - * 1. Emission Limitations:

**XX** lb Filterable PM/MWh

Applicable Compliance Method:

Methods 1 through 5\* and Method 19**;** or PM CEMS and Method 19 w/ Performance Specification 11 at Appendix B to Part 60 and Procedure 2 at Appendix F to Part 60 w/ dilutent gas, flow rate &/or moisture systems certified to Part 75

* + - * 1. Emission Limitations, option to Filterable PM:

**XX** lb Total HAP metals/MWh**;** or lb individual HAP metals/GWh

Applicable Compliance Method:

Methods 1 through 4\* and Methods 29 and 19; Method 30B for Hg

* + - * 1. Emission Limitations:

**XX** lb HCl/MWh

Applicable Compliance Method:

Methods 1 through 4\* and Methods 26A and 19**;** or ASTM D6348-03 or Method 320 and Method 19**;** or HCl CEMS in accordance with Appendix B of Subpart UUUUU w/ dilutent gas, flow rate, &/or moisture systems certified to Part 75 and Method 19

* + - * 1. Emission Limitations:

**XX** lb HF/MWh

Applicable Compliance Method:

Methods 1 through 4\* and Methods 26A and 19**;** or ASTM D6348-03 or Method 320 and Method 19**;** or HF CEMS in accordance with Appendix B of Subpart UUUUU w/ dilutent gas, flow rate, &/or moisture systems certified to Part 75 and Method 19

**\*** Methods 2 and 3 can be Methods 2, 2A, 2C, 2F, 2G, or 2H and Methods 3A or 3B; Methods 1 through 5 are found in Appendix A to Part 60. For positive pressure fabric filters, Method 5D can be used in place of Method 5.

[Part 63, Subpart UUUUU, Tables 1, 2, and 5]

* 1. **Miscellaneous Requirements**
     + 1. Any amendment to Part 60, Subparts D, Da, Db, or Dc and Part 63 Subpart UUUUU shall supersede the compliance limitations and/or options contained in this permit.

-----------------------------------------------------------------------------------------------------------------------------------

**Subpart UUUUU terms by section**

## 40 CFR 63.9980   What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from coal- and oil-fired electric utility steam generating units (EGUs) as defined in 40 CFR 63.10042 of this subpart. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

## 40 CFR 63.9981   Am I subject to this subpart?

You are subject to this subpart if you own or operate a coal-fired EGU or an oil-fired EGU as defined in 40 CFR 63.10042 of this subpart.

Electric utility steam generating unit (EGU) is a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale; and.

A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than 1/3rd of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is an EGU.

## 40 CFR 63.9982   What is the affected source of this subpart?

(a) This subpart applies to each individual or group of two or more new, reconstructed, or existing affected source(s) as described in paragraphs (a)(1) and (2) of this section within a contiguous area and under common control.

(1) The affected source of this subpart is the collection of all existing coal- or oil-fired EGUs, as defined in 40 CFR 63.10042, within a subcategory.

(2) The affected source of this subpart is each new or reconstructed coal- or oil-fired EGU as defined in 40 CFR 63.10042.

(b) An EGU is new if you commence construction of the coal- or oil-fired EGU after May 3, 2011.

(c) An EGU is reconstructed if you meet the reconstruction criteria as defined in 40 CFR 63.2, and if you commence reconstruction after May 3, 2011.

(d) An EGU is existing if it is not new or reconstructed. An existing electric steam generating unit that meets the applicability requirements after the effective date of this final rule due to a change in process (e.g., fuel or utilization) is considered to be an existing source under this subpart.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23402, Apr. 19, 2012; 78 FR 24084, Apr. 24, 2013]

## 

## 40 CFR 63.9984   When do I have to comply with this subpart?

(a) If you have a **new or reconstructed EGU**, you must comply with this subpart by **April 16, 2012** or **upon startup** of your EGU, whichever is later, and as further provided for in 40 CFR 63.10005(g).

(b) If you have an **existing EGU**, you must comply with this subpart no later than **April 16, 2015**.

(c) You must meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

(d) An electric steam generating unit that **does not meet the definition** of an EGU subject to this subpart on April 16, 2012 for new sources or April 16, 2015 for existing sources must comply with the applicable existing source provisions of this subpart **on the date such unit meets the definition of an EGU** subject to this subpart.

(e) If you own or operate an electric steam generating unit that is exempted from this subpart under 40 CFR 63.9983(d), if the manner of operating the unit changes such that the combustion of waste is discontinued and the unit becomes a coal-fired or oil-fired EGU (as defined in 40 CFR 63.10042), you must be in compliance with this subpart on **April 16, 2015 or on the effective date of the switch from waste combustion to coal or oil combustion**, whichever is later.

(f) You must demonstrate that compliance has been achieved, by conducting the required **performance tests** and other activities, **no later than 180 days after the applicable date** in paragraph (a), (b), (c), (d), or (e) of this section.

## 

## 40 CFR 63.9985   What is a new EGU?

(a) A new EGU is an EGU that meets any of the criteria specified in paragraph (a)(1) through (a)(2) of this section.

(1) An EGU that commenced construction after May 3, 2011.

(2) An EGU that commenced reconstruction after May 3, 2011.

(b) Reserved

## Emission Limitations and Work Practice Standards

## 40 CFR 63.9990   What are the subcategories of EGUs?

(a) Coal-fired EGUs are subcategorized as defined in paragraphs (a)(1) through (a)(2) of this section and as defined in 40 CFR 63.10042.

(1) EGUs designed for coal with a heating value greater than or equal to 8,300 Btu/lb, and

(2) EGUs designed for low rank virgin coal.

*Coal-fired electric utility steam generating unit* means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that burns coal for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

*Fossil fuel-fired* means an electric utility steam generating unit (EGU) that is capable of combusting more than 25 MW of fossil fuels. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in its operating permit and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired means any EGU that fired fossil fuels for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after the applicable compliance date.

(b) Oil-fired EGUs are subcategorized as noted in paragraphs (b)(1) through (b)(4) of this section and as defined in 40 CFR 63.10042.

(1) Continental liquid oil-fired EGUs

(2) Non-continental liquid oil-fired EGUs,

(3) Limited-use liquid oil-fired EGUs, and

(4) EGUs designed to burn solid oil-derived fuel.

*Oil* means crude oil or petroleum or a fuel derived from crude oil or petroleum, including distillate and residual oil, solid oil-derived fuel (e.g., petroleum coke) and gases derived from solid oil-derived fuels (not meeting the definition of natural gas).

*Oil-fired electric utility steam generating unit* means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that is not a coal-fired electric utility steam generating unit and that burns oil for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

(c) IGCC units combusting either gasified coal or gasified solid oil-derived fuel. For purposes of compliance, monitoring, recordkeeping, and reporting requirements in this subpart, IGCC units are subject in the same manner as coal-fired units and solid oil-derived fuel-fired units, unless otherwise indicated.

## Terms above and below start with this paragraph

## 40 CFR 63.9991   What emission limitations, work practice standards, and operating limits must I meet?

* + - 1. For each EGU subject to Part 63 Subpart UUUUU, the permittee shall:
         1. meet each applicable emission limit in Table 1 and 2 to the subpart, except where meeting the requirements for emissions averaging;
         2. meet the applicable work practice standards in Table 3 to the subpart; and
         3. meet each applicable operating limit in Table 4 to this subpart.

[40 CFR 63.9991(a)]

* + - 1. The alternate SO2 standard in Tables 1 and 2 to Subpart UUUUU may be used if the EGU:
         1. is controlled by wet or dry flue gas desulfurization technology and is installed with a SO2 continuous emissions monitoring system (CEMS); and
         2. the wet or dry flue gas desulfurization system is operated at all times in accordance with 40 CFR 63.10000(b).

[40 CFR 63.9991(c)]

## General Compliance Requirements

**§63.10000   What are my general requirements for complying with this subpart?**

* + - 1. Except during periods of startup and shutdown, the EGUs shall be operated at all times in compliance with the emission limits identified in Table 1 or 2 of Part 63 Subpart UUUUU; and the EGUs must be operated in accordance with the work practice standards identified in Table 3 to the subpart at all times, including during periods of startup and shutdown.

[40 CFR 63.10000(a)]

* + - 1. The permittee shall operate and maintain the EGUs, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. The determination of whether such operation and maintenance procedures are being used will be based on information available to the Director (or his/her representative) which may include, but is not limited to: monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.10000(b)]

* + - 1. An initial performance test is required for all pollutants, to demonstrate compliance with the applicable emission limits identified in Table 1 or Table 2 of Part 63 Subpart UUUUU.

[40 CFR 63.63.10000(c)(2)]

* + - 1. The liquid oil-fired EGUs may qualify for low emission EGU (LEE) status for Hg, HCl, HF, filterable PM, total HAP metals, or individual HAP metals, except where equipped with an acid gas scrubber and having a main stack with a bypass stack exhaust configuration. And a new EGU does not qualify for a LEE for Hg.

[40 CFR 63.63.10000(c)(2)] and [40 CFR 63.10005(h)(1)]

* + - 1. For existing liquid oil-fired EGUs, an initial performance test conducted in accordance with 40 CFR 63.10005(h), may be used to demonstrate that the EGUs qualify for low emission EGU (LEE) status for Hg, HCl, HF, filterable PM, total HAP metals, or individual HAP metals, except where the EGU is equipped with an acid gas scrubber with a bypass to the exhaust stack. And a new EGU cannot establish a LEE for Hg.

[40 CFR 63.10000(c)(2)] and [40 CFR 63.10005(h)]

* + - 1. In order to establish and maintain a LEE for **Hg,** a 30-day performance test shall be conducted using Method 30B at least once every 12 calendar months to demonstrate continued LEE status. In order to establish and maintain a LEE for the remaining applicable emission limits identified in Table 1 or Table 2 of Subpart UUUUU, a performance test must be conducted for the pollutant at least once every 36 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(2)(i)]

* + - 1. Where the liquid oil-fired EGU does not qualify as a LEE for total HAP metals (including Hg), individual HAP metals (including Hg), or filterable particulate matter (PM), for a new EGU, compliance shall be demonstrated through an initial performance test and the EGU shall be monitored using either a particulate matter continuous parametric monitoring system (PM CPMS) or a PM CEMS; or for an existing EGU, continuous compliance may be demonstrated through quarterly performance testing.

[40 CFR 63.10000(c)(2)(ii)]

* + - 1. Where the existing liquid oil-fired EGU does not qualify as a LEE for hydrogen chloride (**HCl**) or for hydrogen fluoride (HF), initial and continuous compliance may be demonstrated by using an HCl CEMS, an HF CEMS, or an HCl and HF CEMS, installed and operated in accordance with Appendix B to Part 63 Subpart UUUUU. As an alternative, initial and continuous compliance may be demonstrated by conducting an initial and periodic quarterly performance stack tests for HCl and HF. As an alternative, to both monitoring and stack testing for HCl and HF, where the fuel moisture does not exceed 1.0% by weight, the permittee may document the fuel moisture content by measuring or obtaining the records from the supplier and maintaining them on file.

[40 CFR 63.10000(c)(2)(iii)]

* + - 1. Where the permittee has chosen to demonstrate continuous compliance through quarterly performance testing, a site-specific monitoring plan must be developed that ensures the operations of the EGU remains consistent with the operating conditions maintained during the performance tests.

[40 CFR 63.10000(c)(2)(iii)]

* + - 1. Where the EGU qualifies as a **limited-use** liquid oil-fired EGU, as defined in 40 CFR 63.10042, the permittee must comply with the performance tune-up work practice standards in Table 3 of Part 63, Subpart UUUUU and the EGU is not subject to the emissions limits in Tables 1 and 2 of the subpart.

[40 CFR 63.10000(c)(2)(iv)]

* + - 1. The permittee shall develop a site-specific monitoring plan and, if requested, submit it to the appropriate district of local office of the Division of Air Pollution Control at least 60 days before the initial performance evaluation of the CMS. A new monitoring plan is not required where existing monitoring plans for CEMS and CPMS have already been prepared under Appendix B to Part 60 or Part 75, and that meet the requirements of 40 CFR 63.10010. Unless an alternative quality assurance and quality control plan has been approved under the provisions identified in 40 CFR 63.8(f)(4); or the site-specific monitoring plan has been installed, certified, and is operated in accordance with Part 75 or Appendix A or B to Part 63 Subpart UUUU, the provisions of the site-specific monitoring plan shall address the following:
         1. documentation supporting the demonstration that the CMS or sorbent trap monitoring system’s sampling probe or other interface is installed at a location that is representative of the controlled exhaust emissions from each subject EGU (e.g., on or downstream of the last control device) and in accordance with 40 CFR 63.10010(a) or 40 CFR 63.10010(h) for PM CPMS;
         2. performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;
         3. the schedule for conducting initial and periodic performance evaluations;
         4. the performance evaluation procedures and acceptance criteria (e.g., calibrations), including a quality control program meeting the general requirements of 40 CFR 63.8(d);
         5. on-going operation and maintenance procedures, meeting the general requirements of 40 CFR 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);
         6. the conditions that define a CMS that is out of control, consistent with 40 CFR 63.8(c)(7)(i); and procedures for responding to out-of-control periods consistent with 40 CFR 40 CFR 63.8(c)(7)(ii) and (c)(8);
         7. the on-going recordkeeping and reporting procedures, meeting the general requirements of 40 CFR 40 CFR 63.10(c), (e)(1), and (e)(2)(i), and specifically as required under Part 63 Subpart UUUUU.

The CMS shall be operated and maintained in accordance with the site-specific monitoring plan and the applicable rule(s) it is based on, as identified above.

[40 CFR 63.10000(d)]

* + - 1. As part of the demonstration of continuous compliance, periodic tune-ups must be performed on the subject EGU(s) in accordance with 40 CFR 63.10021(e).

[40 CFR 63.10000(e)]

## Testing and Initial Compliance Requirements

## 40 CFR 63.10005   What are my initial compliance requirements and by what date must I conduct them?

**Performance Testing**

* + - 1. For each subject EGU, the permittee shall demonstrate initial compliance for each applicable emissions limit in Table 1 or 2 of Part 63 Subpart UUUUU through performance testing. Where there are two emissions limits for a particular pollutant, in lb/MMBtu, based on heat input, and a limit in lb/MWh, based on an electrical output, compliance may be demonstrated for either emission limit. One or more of the following activities may be required to be conducted in conjunction with performance testing, during the compliance demonstration:
         1. collection of hourly electrical load data (megawatts);
         2. establishment of operating limits according to 40 CFR 63.10011 and Tables 4 and 7 to Part 63 Subpart UUUUU; and
         3. CMS performance evaluations.

[40 CFR 63.10005(a)]

* + - 1. Unless otherwise identified in the rule, the initial performance test shall include three 1-hour test runs (during normal process operating conditions) using the approved performance test methods identified in Table 5 of Subpart UUUUU. The required parametric data used to establish the required operating limits (identified in Table 4 to the Subpart), shall be collected during the performance tests. If choosing or required to comply with an electrical output-based emission limit, the hourly electrical load data must be collected during each performance test.

[40 CFR 63.10005(a)(1) and (2)]

* + - 1. Where demonstrating initial compliance using either a CMS that measures HAP concentrations directly (*i.e.*, an Hg, HCl, or HF CEMS, or a sorbent trap monitoring system) or an SO2 or PM CEMS, the initial performance test consists of 30 boiler operating days of data collected by a certified CEMS or monitoring system, and by the initial compliance demonstration date specified in 40 CFR 63.10005. The 30-boiler operating day CMS performance test must demonstrate compliance with the applicable Hg, HCl, HF, PM, or SO2 emissions limit identified in Table 1 or 2 of Part 63 Subpart UUUUU.

[40 CFR 63.10005(a)(2)]

* + - 1. The performance test used to demonstrate initial compliance with the applicable emissions limits in Tables 1 and/or 2 shall be conducted in accordance with 40 CFR 63.10007 and Table 5 to Part 63 Subpart UUUUU. Test data and results from a performance test conducted prior to the date on which compliance is required, as specified in 40 CFR 63.9984, may be used to demonstrate initial compliance provided that the following conditions are fully met:
         1. for a performance test based on stack test data, the test was conducted no more than 12 calendar months prior to the date on which compliance is required as specified in 40 CFR 63.9984;
         2. for a performance test based on data from a certified CEMS or sorbent trap monitoring system, the test consists of all valid CMS data recorded in the 30-boiler operating days immediately preceding that date;
         3. the performance test was conducted in accordance with all applicable requirements in 40 CFR 63.10007 and Table 5 to Part 63 Subpart UUUUU;
         4. a record of all parameters needed to convert pollutant concentrations to units of the emission standard (e.g., stack flow rate, diluent gas concentrations, hourly electrical loads) is available for the entire performance test period; and
         5. for each performance test based on stack test data, records have been maintained to document and/or certify that the EGU configuration, control devices, and fuel(s) have remained consistent with the same conditions for the same during the performance test.

[40 CFR 63.10005(b)]

* + - 1. For certain liquid oil-fired units, where it is required as part of the initial compliance demonstration to establish operating limits using PM CPMS and site-specific monitoring, they shall be established in accordance with 40 CFR 63.10010 and Table 4 to Part 63 Subpart UUUUU.

[40 CFR 63.10005(c)]

CMS requirements

* + - 1. Where using a CMS for compliance with an emission limit or to establish an operating limit, the CMS must pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified and has continuously met the on-going quality-assurance (QA) requirements of the applicable federal rules, and also meets the applicable requirements of 40 CFR 40 CFR 63.10010(b) through (h), an additional performance evaluation of the CMS is not required.

[40 CFR 63.10005(d)]

IGCC not mentioned below, solid & liquid

* + - 1. Initial compliance may be demonstrated with the applicable SO2, HCl, or HF emissions limit in Table 1 or 2 to Subpart UUUUU through the use of an SO2, HCl, or HF CEMS installed and operated in accordance with Part 75 or Appendix B to Subpart UUUUU. Compliance with a filterable PM emission limit in Table 1 or 2 to Subpart UUUUU may also be demonstrated through use of a PM CEMS installed, certified, and operated in accordance with 40 CFR 63.10010(i). Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see 40 CFR 63.10007(e)), meets the applicable SO2, PM, HCl, or HF emissions limit in Table 1 or 2 to Subpart UUUUU. Equation 19-19 of Method 19 in Appendix A-7 to Part 60 must be used to calculate the 30-boiler operating day average emissions rate; and where Ehj in Equation 19-19 must be in the same units of measure as the applicable HCl or HF emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10005(d)(1)]

* + - 1. Where Hg CEMS or a sorbent trap monitoring system is/are used to demonstrate compliance with mercury (Hg) limit in Tables 1 or 2 to Subpart UUUUU, the permittee shall demonstrate initial compliance no later than October 13, 2015 for the existing EGUs and no later than October 13, 2012 or within 180 days of startup for new EGUs. Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS or sorbent trap monitoring system data, expressed in units of the standard (see Section 6.2 of Appendix A of Subpart UUUUU), meets the applicable Hg emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10005(d)(3)]

* + - 1. For affected liquid oil-fired EGUs, where demonstrating compliance with the applicable emission limits for HCl or HF listed in Table 1 or 2 to Subpart UUUUU through quarterly performance testing and continuous monitoring with a CMS the permittee shall:
         1. demonstrate initial compliance no later than October 13, 2015 for the existing EGUs and no later than October 13, 2012 or within 180 days of startup for new EGUs;
         2. demonstrate continuous compliance with the CMS site-specific operating limit that corresponds to the results of the performance test demonstrating compliance with the HCl or HF emission limit; and
         3. repeat the performance test annually for the HCL or HF emissions limit and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

[40 CFR 63.10005(d)(4)]

* + - 1. As part of the initial compliance demonstration, the permittee shall conduct a performance tune-up for each subject EGU according to 40 CFR 63.10021(e) and Table 3 to Part 63Subpart UUUUU.

[40 CFR 63.10005(e)]

* + - 1. The permittee shall demonstrate initial compliance no later than October 13, 2015 for the existing EGUs and no later than October 13, 2012 or within 180 days of startup for new EGUs.

[40 CFR 63.9984(f) and [40 CFR 63.10005(g)]

OR

**This term left out of permit template:**

* + - 1. If construction or reconstruction of a new or reconstructed EGU commenced between May 3, 2011, and July 2, 2011, the permittee shall demonstrate initial compliance with either the proposed emission limits or the promulgated emission limits of Part 63 Subpart UUUUU no later than October 13 2012 or within 180 days of startup, whichever is later, and in accordance with 40 CFR 63.7(a)(2)(ix). If choosing to comply with the proposed emission limits when demonstrating initial compliance, a second compliance demonstration shall be conducted for the promulgated emission limits within 3 years after April 16, 2012 or within 3 years after startup of the EGU, whichever is later. If construction or reconstruction of a new or reconstructed EGU commenced after April 16, 2012, the permittee shall demonstrate initial compliance with the promulgated emission limits no later than October 13, 2012 or within 180 days of startup.

[40 CFR 63.10005(g)]

*Low emitting EGUs*.

* + - 1. An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, HF, filterable PM, total HAP metals or individual HAP metals if the performance test data collected meets the requirements of 40 CFR 63.10005(h) and if those data demonstrate the following:
         1. for all pollutants except Hg, performance test emissions results are less than 50% of the applicable emissions limits in Table 1 or 2 to Part 63 Subpart UUUUU for all the required testing for 3 consecutive years; or
         2. for Hg emissions from existing EGUs, either:

the average emissions are less than 10% of the applicable Hg emissions limit in Table 2 (expressed either in units of lb/TBtu or lb/GWh); or

the potential Hg mass emissions are 29.0 pounds or less per year and the EGU is in compliance with the applicable Hg emission limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh).

New EGUs do not qualify for the LEE status for Hg.

[40 CFR 63.10005(h)(1)]

* + - 1. In order to demonstrate that an EGU qualifies for LEE status for any pollutant with the exception of Hg, the permittee shall conduct all of the required performance tests described in 40 CFR 63.10007 using two times the minimum sample volume specified in Table 1 or 2 of Subpart UUUUU. The test data shall be converted to the units of the applicable standard in accordance with the instructions identified in 40 CFR 63.10007(e) and Table 5 to the subpart.

[40 CFR 63.10005(h)(2)]

* + - 1. In order for an existing unit to qualify for LEE status for Hg, a performance test shall be conducted for a 30-boiler operating day using Method 30B in Appendix A-8 to Part 60. The Method 30B sampling probe tip shall be located at a point within the 10% centroidal area of the duct and shall meet Method 1 in Appendix A-1 to Part 60. At least 3 nominally equal length test runs shall be conducted over the 30-boiler operating day test period. Mercury emissions data must be collected continuously over the entire test period (except when changing sorbent traps or performing required reference method QA procedures) and under all process operating conditions. A pair of sorbent traps may be used to sample the stack gas for no more than 10 days. The LEE status for Hg may be assessed in terms of the lb/TBtu or lb/GWh emission limit in Table 2 to the subpart or in terms of the annual Hg mass emissions limit (29 lbs/yr). The following data shall be collected during the 30-boiler operating day test period:
         1. Depending on whether the LEE status for Hg is assessed in terms of the lb/TBtu or lb/GWh emission limit in Table 2 or in terms of the annual Hg mass emissions limit of 29.0 lb/year, some or all of the following data must be collected during the 30-boiler operating day test period (see 40 CFR 63.10005(h)(3)(iii)):

diluent gas (CO2 or O2) data, using either Method 3A in Appendix A-3 to Part 60 or a diluent gas monitor that has been certified according to Part 75;

stack gas flow rate data, using either Method 2, 2F, or 2G in Appendices A-1 and A-2 to Part 60, or a flow rate monitor that has been certified according to Part 75;

stack gas moisture content data, using either Method 4 in Appendix A-1 to Part 60, or a moisture monitoring system that has been certified according to Part 75. Alternatively, an appropriate fuel-specific default moisture value from 40 CFR 75.11(b) may be used in the calculations; or, under 40 CFR 75.66, the Administrator may approve the use of a default moisture value for non-coal-fired units; and

hourly electrical load data (megawatts), from facility records.

* + - * 1. If using CEMS to measure CO2 (or O2) concentration, the flow rate, and/or the moisture, hourly average values of each parameter must be recorded throughout the 30-boiler operating day test period. If opting to use EPA reference methods rather than CEMS for any parameter, at least one representative test run must be performed on each operating day of the test period, using the applicable reference method.
        2. The average Hg concentration in µg/m3 (dry basis) for the 30-boiler operating day performance test shall be calculated as the arithmetic average of all Method 30B sorbent trap results; and the average values of the CO2 or O2 concentration, stack gas flow rate, stack gas moisture content, and electrical load must be calculated for the test period. These results must be converted as follows:

To express the test results in units of lb/TBtu, the average Hg concentration and diluent gas values must be used the calculations and procedures found in 40 CFR 63.10007(e).

To express the test results in units of lb/GWh, Equations A-3 and A-4 in Section 6.2.2 of Appendix A to Subpart UUUUU must be used, replacing the hourly values “Ch”, “Qh”, “Bws” and “(MW)h” with the average values of these parameters from the performance test.

To calculate pounds of Hg per year, one of the following methods must be used:

Multiply the average lb/TBtu Hg emission rate (determined according to 40 CFR 63.10005(h)(3)(iii)(A) by the maximum potential annual heat input to the unit (TBtu), which is equal to the maximum rated unit heat input (TBtu/hr) times 8,760 hours. If the maximum rated heat input value is expressed in units of MMBtu/hr, multiply it by 10−6 to convert it to TBtu/hr; or

Multiply the average lb/GWh Hg emission rate (determined according to 40 CFR 63.10005(h)(3)(iii)(B) by the maximum potential annual electricity generation (GWh), which is equal to the maximum rated electrical output of the unit (GW) times 8,760 hours. If the maximum rated electrical output value is expressed in units of MW, multiply it by 10−3 to convert it to GW; or

If an EGU has a federally-enforceable permit limit on either the annual heat input or the number of annual operating hours, the calculations in 40 CFR 63.10005(h)(3)(iii)(C)(1) may be modified by replacing the maximum potential annual heat input or 8,760 unit operating hours with the permit limit on annual heat input or operating hours (as applicable).

[40 CFR 63.10005(h)(3)]

* + - 1. For a group of affected EGUs that vent to a common stack, the LEE status may either be assessed for the units individually by performing a separate emission test of each unit in the duct leading from the unit to the common stack, or a single emission test may be performed in the common stack. If the common stack testing option is chosen, the EGU units in the configuration qualify for LEE status if:
         1. The emission rate measured at the common stack is less than 50% (10% for Hg) of the applicable emission limit in Table 1 or 2; or
         2. For Hg (existing EGUs), the applicable emission limit in Table 2 is met and the potential annual mass emissions, calculated according to 40 CFR 63.10005(h)(3)(iii) (with some modifications), are less than or equal to 29.0 pounds times the number of EGUs sharing the common stack. The calculations must be bases on the combined heat input capacity of all EGUs sharing the stack (*i.e.*, either the combined maximum rated value or, if applicable, a lower combined value restricted by permit conditions or operating hours).

[40 CFR 63.10005(h)(4)]

* + - 1. For an affected EGU with a multiple stack or duct configuration, in which the exhaust stacks or ducts are downstream of all emission control devices, a separate emission test must be performed in each stack or duct and the EGU qualifies for LEE status if:
         1. The emission rate, based on all test runs performed at all of the stacks or ducts, is less than 50% (10% for Hg) of the applicable emission limit in Table 1 or 2; or
         2. For Hg (existing EGUs), the applicable Hg emission limit in Table 2 is met and the potential annual mass emissions, calculated according to 40 CFR 63.10005(h)(3)(iii) using the average Hg emissions rate from the performance test runs, are less than or equal to 29.0 pounds.

[40 CFR 63.10005(h)(5)]

* + - 1. If the fuel moisture content of the oil is no greater than 1.0% by weight, the initial and ongoing compliance demonstration for HCl and HF shall include the following requirements:
         1. the moisture content of each shipment of fuel oil shall be measured if the fuel arrives on a batch basis; or
         2. the fuel moisture content shall be measured daily if the fuel arrives on a continuous basis; or
         3. the fuel supplier shall provide a fuel moisture certification it shall be maintained and provided upon request.

[40 CFR 63.10005(i)(1) through (3)]

* + - 1. If the fuel moisture content of the oil is no greater than 1.0% by weight, one of the following methods may be used to determine fuel moisture content:
         1. ASTM D95-05 (Reapproved 2010), “Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation,” or
         2. ASTM D4006-11, “Standard Test Method for Water in Crude Oil by Distillation,” including Annex A1 and Appendix A1.
         3. ASTM D4177-95 (Reapproved 2010), “Standard Practice for Automatic Sampling of Petroleum and Petroleum Products,” including Annexes A1 through A6 and Appendices X1 and X2, or
         4. ASTM D4057-06 (Reapproved 2011), “Standard Practice for Manual Sampling of Petroleum and Petroleum Products,” including Annex A1.

[40 CFR 63.10005(i)(4)]

* + - 1. If the fuel moisture content of the oil is no greater than 1.0% by weight, one of the following methods shall be used to obtain fuel moisture samples:
         1. ASTM D4177-95 (Reapproved 2010), “Standard Practice for Automatic Sampling of Petroleum and Petroleum Products,” including Annexes A1 through A6 and Appendices X1 and X2, or
         2. ASTM D4057-06 (Reapproved 2011), “Standard Practice for Manual Sampling of Petroleum and Petroleum Products,” including Annex A1.

[40 CFR 63.10005(i)(5)]

* + - 1. Where the moisture content of the liquid fuel exceed 1.0% by weight, the permittee shall meet the following requirements:
         1. HCl and HF emissions testing must be conducted quarterly and monitor site-specific operating parameters shall be monitored as required per 40 CFR 63.10000(c)(2)(iii); or
         2. CEMS for HCl and/or HF shall be used.

[40 CFR 63.10005(i)(6)]

## 40 CFR 63.10006   When must I conduct subsequent performance tests or tune-ups?

* + - 1. Where using PM CPMS to monitor continuous performance with an applicable emission limit as provided for under 40 CFR 63.10000(c), all applicable performance tests shall be conducted every year in accordance with Table 5 to Subpart UUUUU and 40 CFR 63.10007.

[40 CFR 63.10006(a)]

* + - 1. For affected EGUs that have met the LEE requirements of 40 CFR 63.10005(h), the performance test shall be repeated once every 3 years and once every year for Hg, and in accordance with Table 5 to Subpart UUUUU and 40 CFR 63.10007. If subsequent emissions testing results show an EGU does not meet the LEE eligibility requirements (for non-mercury LEEs emissions equal or exceed of 50% of the applicable emission limit; or for a Hg LEE emissions equal or exceed of 10% of the emission limit or the potential Hg emissions exceed 29.0 pounds per year), the LEE status is lost and the following procedures shall be followed:
         1. For all pollutant limits except for Hg, emissions testing shall be conducted quarterly, except where the boiler is operated less than 168 hours in the quarter (per 40 CFR 63.10021(d)(1)).
         2. For Hg, a Hg CEMS or a sorbent trap monitoring system shall be installed, certified, maintained, and operated in accordance with Appendix A of Subpart UUUUU and within 6 calendar months of losing LEE eligibility. Until the Hg CEMS or a sorbent trap monitoring system is installed, certified, and operating, Hg emissions testing shall be conducted quarterly, except as otherwise provided in 40 CFR 63.10021(d)(1).
         3. Three calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria are required in order to reestablish LEE status.

[40 CFR 63.10006(b) and (h)]

* + - 1. Where the EGU does not qualify for the LEE and is not using PM CPMS or PM CEMS, the permittee shall conduct all periodic emissions tests for filterable PM, individual HAP metals, or total HAP metals in accordance with Table 5 to Subpart UUUUU, 40 CFR 63.10007, and 40 CFR 63.10000(c), except where the boiler is operated less than 168 hours in a quarter (per 40 CFR 63.10021(d)(1)).

[40 CFR 63.10006(c)]

* + - 1. Where the liquid-oil fired EGU does not qualify for the LEE and is not using HCl CEMS and/or HF CEMS, the permittee shall conduct all quarterly HCl and/or HF emissions tests in accordance with Table 5 to the Subpart UUUUU and 40 CFR 63.10007, except where the boiler is operated less than 168 hours in a quarter (per 40 CFR 63.10021(d)(1)) and shall conduct monitoring under the site-specific plan, as provided for in 40 CFR 63.10000(c)(2)(iii).

[40 CFR 63.10006(e)]

* + - 1. Where performance tests are required at least every 3 calendar years, they must be completed within 35 to 37 calendar months after the previous performance test. Where performance tests are required at least every year, they must be completed within 11 to 13 calendar months after the previous performance test. And where performance tests are required at least quarterly, they must be completed within 80 to 100 calendar days after the previous performance test, except where the boiler is operated less than 168 hours during any quarter. A compliance demonstration conducted through emissions averaging, under 40 CFR 63.10009, does not change the frequency of the appropriate performance stack tests.

[40 CFR 63.10006(f) and (g)] and [40 CFR 63.10021(d)(1)]

* + - 1. The permittee shall conduct performance tune-ups in accordance with 40 CFR 63.10021(e) and at the following frequency:
         1. for EGUs not employing neural network combustion optimization during normal operation, each performance tune-up specified in 40 CFR 63.10021(e) must be conducted no more than 36 calendar months after the previous performance tune-up; or
         2. for EGUs employing neural network combustion optimization systems during normal operation, each performance tune-up specified in 40 CFR 63.10021(e) must be conducted no more than 48 calendar months after the previous performance tune-up; or
         3. for existing affected EGUs where a tune-up occurred prior to April 16, 2012, adequate records have been maintained to show that the tune-up met the requirements of the Subpart UUUUU standards, and the EGU is not employing neural network combustion optimization during normal operation, the permittee has up to 42 calendar months (3 years from promulgation plus 180 days) after the compliance date specified in 40 CFR 63.9984 (42 months after April 16, 2015) to conduct the initial tune-up, if meeting the applicable provisions in 40 CFR 63.7(a)(2); or
         4. for existing affected EGUs where a tune-up occurred prior to April 16, 2012, adequate records have been maintained to show that the tune-up met the requirements of the Subpart UUUUU standards, and employing neural network combustion optimization systems during normal operation, the permittee has up to 54 calendar months (48 months from promulgation plus 180 days) after the compliance date specified in 40 CFR 63.9984 (54 months after April 16, 2015) to conduct the initial tune-up, if meeting the applicable provisions in 40 CFR 63.7(a)(2).

[40 CFR 63.10006(i)] and [40 CFR 63.10005(f)]

* + - 1. The results of performance tests and performance tune-ups must be reported within 60 days after the completion of the performance tests and performance tune-ups. The reports for all subsequent performance tests shall include all the applicable information identified in 40 CFR 63.10031.

[40 CFR 63.10006(j)]

## 40 CFR 63.10007   What methods and other procedures must I use for the performance tests?

* + - 1. The permittee shall develop or shall have developed a site-specific test plan in accordance with the requirements in 40 CFR 63.7(c). Except as otherwise provided in Part 63 Subpart UUUUU, all required performance tests shall be conducted in accordance with 40 CFR 63.7(d), (e), (f), and (h).

[40 CFR 63.10007(a)]

* + - 1. Where CEMS (Hg, HCl, HF, SO2, other) are used to determine compliance with a 30-boiler operating day rolling average emission limit, data must be collected during all EGU (subject to Subpart UUUUU) operating conditions, including startups and shutdowns.

[40 CFR 63.10007(a)(1)], [40 CFR 63.10011(g)], and [Table 3 to Subpart UUUUU]

* + - 1. When establishing operating limits with a PM CPMS to demonstrate compliance with a PM or non-Hg metals emissions limit or when demonstrating compliance through the performance test methods in lieu of installing CEMS, the EGU must be operated at the maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. The maximum normal operating load will be considered to be between 90% and 110% of the design capacity of the EGU; however, the operating load should be representative of site-specific normal operations during each test run if the EGU is never operated at a 90% plus capacity.

[40 CFR 63.10007(a)(2)]

* + - 1. For establishing operating limits with particulate matter continuous parametric monitoring system (PM CPMS) to demonstrate compliance with a PM or non-Hg metals emissions limit, operate the EGU must be operated at maximum normal operating load conditions during the performance test period. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run.

[40 CFR 63.10007(a)(3)]

* + - 1. Each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data, sorbent trap monitoring system data, and 30-boiler operating day Hg emission tests for LEE qualification) shall be conducted in accordance with the requirements identified in Table 5 to Part 63 Subpart UUUUU.

[40 CFR 63.10007(b)]

* + - 1. If the filterable PM method is used to comply with the PM emission limit and a PM CPMS is used to demonstrate continuous performance, as provided for in 40 CFR 63.10000(c), operating limit(s) shall be established in accordance with 40 CFR 63.10011(b), 40 CFR 63.10023, and Tables 4 and 6 to Part 63 Subpart UUUUU. If an EGU is operated at a load(s) other than the load under which the EGU has been performance tested, additional testing must be conducted at the other load(s) to determine and document the operating limits at the alternative load and to demonstrate compliance.

[40 CFR 63.10007(c)]

* + - 1. Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, a minimum of 3 separate test runs shall be conducted for each performance test, as specified in 40 CFR 63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 1 or 2 of Part 63 Subpart UUUUU.

[40 CFR 63.10007(d)]

* + - 1. In order to determine compliance with the applicable emission limits in Table 1 or 2 to Part 63 Subpart UUUUU, the test results from performance testing shall be applied as follows:
         1. Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, if the measured results for any pollutant are below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), the method detection level itself shall be used as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.
         2. If the limits are expressed in lb/MMBtu or lb/TBtu, the F-factor methodology and equations in Sections 12.2 and 12.3 of EPA Method 19 of Appendix A-7 to Part 60 shall be used to convert the part per million (ppm) test results to the appropriate units. In cases where an appropriate F-factor is not listed in Table 19-2 of Method 19, the F-factors from Table 1 in Section 3.3.5 of Appendix F to Part 75, or F-factors derived using the procedures found in Section 3.3.6 of Appendix **F** to Part 75 may be used.
         3. The following factors should be used to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable Method 19 equations:

multiply SO2 ppm by 1.66 × 10−7;

multiply HCl ppm by 9.43 × 10−8;

multiply HF ppm by 5.18 × 10−8;

multiply HAP metals concentrations (mg/dscm) by 6.24 × 10−8; and

multiply Hg concentrations (µg/scm) by 6.24 × 10−11.

[40 CFR 63.10007(e)(1) and (2)]

* + - 1. If a CEMS or sorbent trap monitoring system are used for compliance with the Hg standard, Equation A-2 or A-3 in Appendix A of Part 63 Subpart UUUUU shall be used, as applicable. In all other cases an equation that has the general form of Equation A-2 or A-3 should be used, defining Ch as the average SO2, HCl, or HF concentration in ppm or the average HAP metals concentration in mg/dsc, and replacing the value of K with:
         1. 1.66 × 10−7 lb/scf-ppm for SO2;
         2. 9.43 × 10−8 lb/scf-ppm for HCl (if an HCl CEMS is used);
         3. 5.18 × 10−8 lb/scf-ppm for HF (if an HF CEMS is used); or
         4. 6.24 × 10−8 lb-scm/mg-scf for HAP metals and defining Ch as the average HAP metals concentration in mg/dscm
         5. 6.24 × 10−8 lb-scm/mg-scf for HCl and HF when performance stack tested, and defining Ch as the average SO2, HCl, or HF concentration in ppm.

Equations A-2 and A-3 from Appendix A of Subpart UUUUU are identified below from Sections 6.2.2.1:

6.2.2.1 Equations A-2 and A-3 to calculate the Hg mass emissions for each operating hour in which valid data are obtained for all parameters, using Equation A-2 for wet-basis measurements of Hg concentration or Equation A-3 for dry-basis measurements, as applicable:

Mh = K x Ch x Qh (Equation A-2) *wet-basis measurements of Hg concentration*

Where:

Mh = Hg mass emission rate for the hour (lb/h)

K = Units conversion constant, 6.24 × 10−11 lb-scm/µg-scf,

Ch = Hourly average Hg concentration, wet basis (µg/scm)

Qh = Stack gas volumetric flow rate for the hour (scfh).

(Note: Use unadjusted flow rate values; bias adjustment is not required)

Mh = K x Ch x Qh (Equation A-3) *dry-basis measurements of Hg concentration*

Where:

Mh = Hg mass emission rate for the hour (lb/h)

K = Units conversion constant, 6.24 × 10−11 lb-scm/µg-scf.

Ch = Hourly average Hg concentration, dry basis (µg/dscm).

Qh = Stack gas volumetric flow rate for the hour (scfh)

( Note: Use unadjusted flow rate values; bias adjustment is not required).

Bws = Moisture fraction of the stack gas, expressed as a decimal (equal to % H2 O/100)

These calculations require stack gas volumetric flow rate (scfh) and in some cases moisture content data (see 40 CFR 40 CFR 63.10005(h)(3) and 63.10010).

In order to determine compliance with emission limits expressed in lb/MWh or lb/GWh, the pollutant mass emission rate measured during the performance test must be calculated to units of lb/h. If the applicable emission limit is in units of lb/GWh, Equation A-4 in Appendix A to Subpart UUUUU shall be used to calculate the pollutant emission rate in lb/GWh. In this calculation, (M)h is defined as the calculated pollutant mass emission rate for the performance test (lb/h), and (MW)h is defined as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, the 103 term is omitted from Equation A-4 to determine the pollutant emission rate in lb/MWh.

6.2.2.2 Equation A-4 to calculate the emission rate for each unit or stack operating hour in which valid data are obtained for all parameters.

Eho = Mh / (MW)h x 103 (Equation A-4) *on an output basis*

Where:

Eho = Electrical output-based Hg emission rate (lb/GWh).

Mh = Hg mass emission rate for the hour, from Equation A-2 or A-3 of this section, as applicable (lb/h).

(MW)h = Gross electrical load for the hour, in megawatts (MW).

103 = Conversion factor from megawatts to gigawatts.

These calculations and any records necessary to demonstrate that the performance tests were completed in accordance with Subpart UUUUU and they have demonstrated compliance with the applicable emission limits identified in Tables 1 or 2 of Subpart UUUUU shall be submitted to the appropriate district or local air agency of the Ohio EPA Division of Air Pollution Control upon request.

[40 CFR 63.10007(e) and (f)]

## 40 CFR 63.10009   May I use emissions averaging to comply with this subpart?

* + - 1. The permittee may use emissions averaging, in accordance with 40 CFR 63.10009, as an alternative to meeting the requirements of 40 CFR 63.9991 for filterable PM, SO2 , HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis if:
         1. there are more than one existing EGU in the same subcategory, located at one or more contiguous properties, belonging to a single major industrial grouping, and which are under common control of the same person (or persons under common control); and
         2. CEMS (or sorbent trap monitoring systems for determining Hg emissions) or quarterly emissions testing are used for demonstrating compliance.

Compliance by emissions averaging can be demonstrated among the existing EGUs in the same subcategory, if the averaged Hg emissions for EGUs in the “unit designed for coal ≥ 8,300 Btu/lb” subcategory are equal to or less than 1.0 lb/TBtu or 1.1E-2 lb/GWh, or if the averaged emissions of individual, other pollutants from other subcategories of these EGUs are equal to or less than the applicable emissions limit in Table 2 in accordance with the procedures identified in 40 CFR 63.10009.

[40 CFR 63.10009(a)(1)]

* + - 1. Except for Hg emissions from EGUs in the “unit designed for coal ≥ 8,300 Btu/lb” subcategory, the averaging time for emissions averaging for pollutants is 30 days (rolling daily) using data from CEMS or a combination of data from CEMS and manual performance testing. The averaging time for emissions averaging for Hg from EGUs in the “unit designed for coal ≥ 8,300 Btu/lb” subcategory is 90 days (rolling daily) using data from CEMS, sorbent trap monitoring, or a combination of monitoring data and data from manual performance testing. For the purposes of this paragraph, 30- (or 90-day) group boiler operating days is defined as a period during which at least one unit in the emissions averaging group has operated 30 (or 90) days. The weighted average emissions rate must be calculated for the group in accordance with the procedures identified in 40 CFR 63.10009, using the data from all units in the group including any that operate fewer than 30 (or 90) days during the preceding 30 (or 90) group boiler days.
         1. the EGU emissions averaging group may meet either the heat input basis (MMBtu or TBtu, as appropriate for the pollutant) or gross electrical output basis (MWh or GWh, as appropriate for the pollutant).
         2. within each EGU emissions averaging group the averaging cannot be calculated on a mixed heat input / heat output bases.
         3. emissions averaging may be used for EGUs in different subcategories if the units vent to the atmosphere through a common stack (see 63.10009(m)).

[40 CFR 63.10009(a)(2)]

* + - 1. The following equations shall be used when performing calculations for EGU emissions averaging group(s):

*Group eligibility equations.*

Equation 1a:

p n m p n m

WAERm = **{** [∑ [∑ (Hermi x Rmmi)]p] + ∑ (Teri x Rmti) **}** **/** **{** [∑ [∑ (Rmmi]p +∑ Rmti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Hermi = Hourly emissions rate (e.g., lb/MMBtu, lb/MWh) from CEMS or sorbent trap monitoring for hour i;

Rmmi = Maximum rated heat input or gross electrical output of unit i in terms of heat input or gross electrical output;

Teri = Emissions rate from most recent test of unit i in terms of lb/heat input or lb/gross electrical output;

Rmti = Maximum rated heat input or gross electrical output of unit i in terms of lb/heat input or lb/gross electrical output;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

Equation 1b; calculation based on steam generation:

p n m p n m

WAERm = **{**[∑ [∑ (Hermi x Smmi x Cfmi)]p] + ∑ (Teri x Smti x Cfti)**}** **/** **{**[∑ [∑ (Smmi x Cfmi]p +∑ Smti x Cfti**}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Hermi = Hourly emissions rate (e.g., lb/MMBtu, lb/MWh) from CEMS or sorbent trap monitoring for hour i;

Smmi = maximum steam generation in units of pounds from unit i that uses CEMS or sorbent trap monitoring;

Cfmi = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring;

Teri = Emissions rate from most recent test of unit i in terms of lb/heat input or lb/gross electrical output;

Smti = maximum steam generation in units of pounds from unit i that uses emissions testing;

Cfti = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

[40 CFR 63.10009(b)(1)]

* + - 1. Equation 2a or 2b shall be used to calculate the 30-boiler operating day rolling average emissions for pollutants other than Hg. This calculation for the weighted 30-boiler operating day rolling average emissions rate must be completed daily.

Equation 2a:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Rmi)]p] + ∑ (Teri x Rti) **}** **/** **{** [∑ [∑ (Rmi]p +∑ Rti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate (e.g., lb/MMBtu, lb/MWh) from unit i's CEMS for the preceding 30-group boiler operating days;

Rmi = hourly heat input or gross electrical output from unit i for the preceding 30-group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Rti = Total heat input or gross electrical output of unit i for the preceding 30-boiler operating days;

p = number of EGUs in emissions averaging group that rely on CEMS or sorbent trap monitoring;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

Equation 2b; calculation based on steam generation:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Smi x Cfmi)]p] + ∑(Teri x Sti x Cfti) **}** **/** **{** [∑ [∑ (Smi x Cfmi]p +∑ Sti x Cfti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate (e.g., lb/MMBtu, lb/MWh) from unit i's CEMS for the preceding 30-group boiler operating days;

Smi = steam generation in units of pounds from unit i that uses CEMS for the preceding 30-group boiler operating days;

Cfmi = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS from the preceding 30 group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Sti = steam generation in units of pounds from unit i that uses emissions testing;

Cfti = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing;

p = number of EGUs in emissions averaging group that rely on CEMS or sorbent trap monitoring;

n = number of hourly rates collected over 30-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

* + - 1. Equation 3a or 3b shall be used to calculate the 90-boiler operating day rolling average emissions for Hg emissions from EGUs in the “coal-fired unit not low rank virgin coal” subcategory. This calculation for the weighted 90-boiler operating day rolling average emissions rate must be completed daily.

Equation 3a:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Rmi)]p] + ∑ (Teri x Rti) **}** **/** **{** [∑ [∑ (Rmi]p +∑ Rti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate from unit i's CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days;

Rmi = hourly heat input or gross electrical output from unit i for the preceding 90-group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Rti = Total heat input or gross electrical output of unit i for the preceding 90-boiler operating days;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over the 90-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

Equation 3b; calculation based on steam generation:

p n m p n m

WAERm = **{** [∑ [∑ (Heri x Smi x Cfmi)]p] + ∑(Teri x Sti x Cfti) **}** **/** **{** [∑ [∑ (Smi x Cfmi)]p +∑ Sti x Cfti **}**

i=1 i=1 i=1 i=1 i=1 i=1

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output;

Heri = hourly emission rate from unit i's CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days;

Smi = steam generation in units of pounds from unit i that uses CEMS or a Hg sorbent trap monitoring for the preceding 90-group boiler operating days;

Cfmi = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring from the preceding 90-group boiler operating days;

Teri = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output;

Sti = steam generation in units of pounds from unit i that uses emissions testing;

Cfti = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing;

p = number of EGUs in emissions averaging group that rely on CEMS;

n = number of hourly rates collected over the 90-group boiler operating days; and

m = number of EGUs in emissions averaging group that rely on emissions testing.

[40 CFR 63.10009(b)(3)]

***Separate stack requirements***

* + - 1. Should the Administrator require approval, the permittee shall submit the proposed emissions averaging plan and supporting data to the Administrator at least 120 days before April 16, 2015. If the Administrator requires approval of the plan, emissions averaging cannot be used to demonstrate compliance until the Administrator approves the emissions averaging plan.

[40 CFR 63.10009(f)]

* + - 1. For a group of two or more existing EGUs in the same subcategory that each vent to a separate stack, filterable PM, SO2, HF, HCl, non-Hg HAP metals, and/or Hg emissions may be averaged to demonstrate compliance with the limits in Table 2 to Subpart UUUUU if the following requirements have been met:
         1. For each existing EGU in the averaging group,

the emissions rate achieved during the initial performance test, for the HAP being averaged, must not exceed whichever is earlier:

the emissions level that was being achieved 180 days after April 16, 2015 (10/13/15); or

the emissions level measured during the emissions testing completed to support the emissions averaging plan (following plan approval, if required); or

the emissions level that was being achieved on the date that emissions averaging was first used to demonstrate compliance; or

The control technology employed during the initial performance test is:

not less effective than the design efficiency of the emissions control technology employed 180 days after April 16, 2015 (10/13/15); or

not less effective than the design efficiency of the emissions control technology employed on the date emissions averaging is first used to demonstrate compliance, whichever is earlier;

* + - * 1. The weighted-average emissions rate from the existing EGUs, participating in the emissions averaging option, are in compliance at all times with the limits in Table 2 to Subpart UUUUU, following the earliest of the following dates:

the performance testing compliance date, 180 days after April 16, 2015, (10/13/15); or

the date of completion of the emissions measurements used to support the emissions averaging plan (following plan approval, if required), or

the date that emissions averaging was first used to demonstrate compliance.

* + - * 1. The EGUs included in any emissions averaging group shall demonstrate initial compliance at the maximum normal operating load of each EGU during the initial performance tests. The required emissions monitoring must be conducted for 30 days of boiler operation and the required manual performance testing must be conducted in order to calculate an initial weighted average emissions rate using the CEMS and performance testing results as follows:

Using Equation 1a of 40 CFR 63.10009(b), the maximum weighted average emissions rates of filterable PM, HF, SO2, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging option must be demonstrated not to exceed the emissions limits in Table 2 to Subpart UUUUU.

If heat input or gross electrical output cannot be monitored, and the EGU generates steam for purposes other than generating electricity, Equation 1b of 40 CFR 63.10009(b) may be used as an alternative to using Equation 1a, to demonstrate that the maximum weighted average emissions rates of filterable PM, HF, SO2, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging group do not exceed the emission limits in Table 2 to Subpart UUUUU.

* + - * 1. The weighted average emissions rate must be determined in units of the applicable emissions limit on a 30 day rolling average basis, or 90 day rolling average basis for Hg, as follows:

Equation 2a or 3a of 40 CFR 63.10009(b) must be used to calculate the weighted average emissions rate using the actual heat input or gross electrical output for each existing EGU participating in the emissions averaging option.

If heat input or gross electrical output cannot be monitored, Equation 2b or 3b of 40 CFR 63.10009(b) may be used as an alternative to using Equation 2a, to calculate the average weighted emission rate using the actual steam generation from the EGUs participating in the emissions averaging option.

The first averaging period begins on 30 days (or 90 for Hg) after February 16, 2015 or the date compliance through emissions averaging begins, whichever is earlier.

* + - * 1. If an EGU in the emissions averaging group uses CEMS (or a sorbent trap monitor for Hg emissions) to demonstrate compliance, those data must be used to determine the 30 (or 90) group boiler operating day rolling average emissions rate.
        2. If manual emissions testing is used to demonstrate compliance for one or more EGUs in the emissions averaging group, the results from the most recent performance test must be used to determine the 30 (or 90) day rolling average emissions rate. CEMS or sorbent trap data may be used in combination with data from the most recent manual performance test in calculating the 30 (or 90) group boiler operating day rolling average emissions rate.
        3. An emissions averaging plan shall be developed and implemented, for compliance demonstrated through emissions averaging, in accordance with the following procedures and requirements:

The following information must be contained in the implementation plan for all of the EGUs included in a compliance demonstration through emissions averaging:

The identification of all existing EGUs in the emissions averaging group, including for each either the applicable HAP emission level or the control technology installed as of 180 days after February 16, 2015, or the date on which the emissions measurements used to support the emissions averaging plan were completed (if the Administrator does not require submission and approval of the emissions averaging plan), or the date that emissions averaging was initially used for compliance, whichever is earlier; and the date emissions averaging is being requested to commence;

The process weighting parameter (heat input, gross electrical output, or steam generated) that will be monitored for each averaging group;

The specific control technology or pollution prevention measure to be used for each emission EGU in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple EGUs, the identification of each;

The means of measurement (e.g., CEMS, sorbent trap monitoring, manual performance test) of filterable PM, SO2, HF, HCl, individual or total non-Hg HAP metals, or Hg emissions in accordance with the requirements in 40 CFR 63.10007 and to be used in the emissions averaging calculations; and

A demonstration that emissions averaging can produce compliance with each of the applicable emission limit(s) in accordance with 40 CFR 63.10009(b)(1).

If the Administrator requests the plan to be submitted for review and approval, a complete implementation plan must be submitted at least 120 days before April 16, 2015 (12/17/14). If the Administrator requests the plan to be submitted for review and approval, his/her approval must be received before compliance through emissions averaging can be implemented.

The Administrator shall use following criteria in reviewing and approving or disapproving the plan:

Whether the content of the plan includes all of the information specified in 40 CFR 63.10009(j)(1); and

Whether the plan presents information sufficient to determine that compliance will be achieved and maintained.

The Administrator shall not approve an emissions averaging implementation plan containing any of the following provisions:

Any averaging between emissions of different pollutants or between units located at different facilities; or

The inclusion of any EGUs other than an existing unit in the same subcategory.

[40 CFR 63.10009(c) through (j)]

***Common stack requirements***

* + - 1. For a group of two or more existing affected EGUs, each of which vents through a single common stack, emissions may be averaged to demonstrate compliance with the limits in Table 2 to Subpart UUUUU if the following conditions are met:
         1. For a group of two or more existing EGUs in the same subcategory and which vent through a common emissions control system to a common stack that does not receive emissions from units in other subcategories or categories, the EGUs in such averaging group may be treated as a single existing unit for purposes of compliance with Part 63 Subpart UUUUU.
         2. For all other groups of EGUs vented to a common stack, manual performance tests man be conducted according to procedures specified in 40 CFR 63.10007 in the common stack to demonstrate compliance. If emissions from the single stack include affected EGUs participating (and qualifying for) emissions averaging and emissions from other units not included in the emissions averaging (e.g., in a different subcategory) or other nonaffected sources, the units not included in the emissions averaging and the nonaffected sources must be shut down or their emissions vented to a different stack during the performance test. Alternatively, a performance test may be conducted for the combined emissions in the common stack with all units operating and the combined emissions can be demonstrated to meet the most stringent emissions limit; or CEMS or sorbent trap monitoring can be used to demonstrate that the combined emissions comply with the most stringent emissions limit on a continuous basis.

[40 CFR 63.10009(k) through (m)]

* + - 1. The common stack of a group of two or more existing EGUs in the same subcategory may be treated as a single stack and can be included in an emissions averaging group for the separate stack requirements identified in 63.10009(c).

[40 CFR 63.10009(n)]

## 40 CFR 63.10022   How do I demonstrate continuous compliance under the emissions averaging provision?

* + - 1. Following the compliance date and where demonstrating compliance through emissions averaging, the permittee shall demonstrate compliance with Subpart UUUUU on a continuous basis by meeting the following requirements:
         1. For each 30- (or 90-) day rolling average period, the permittee shall maintain the records of the calculated average weighted emissions limit, for the existing units participating in the emissions averaging option, in accordance with 40 CFR 63.10009(f) and (g);
         2. For each existing unit participating in the emissions averaging option that is equipped with PM CPMS, the permittee shall maintain the average parameter value at or below the operating limit established during the most recent performance test; and
         3. For each existing unit participating in the emissions averaging option and venting to a common stack configuration containing affected EGUs from other subcategories, the permittee shall maintain the appropriate operating limit for each EGU as specified in Table 4 to Subpart UUUUU.

Any instance where the permittee fails to comply with the continuous monitoring requirements identified above shall be considered a deviation from the NESHAP.

[40 CFR 63.10022]

## 40 CFR 63.10010   What are my monitoring, installation, operation, and maintenance requirements?

* + - 1. The continuous monitoring systems for CEMS, PM CPMS, and sorbent trap monitoring systems must meet the following requirements for installation:
         1. For an affected EGU that exhausts to the atmosphere through a single, dedicated stack, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall either be installed in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere.
         2. When an EGU exhausts to a common stack shared with one or more other affected EGUs, but no non-affected units, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall either be installed in the duct leading to the common stack from each unit or installed in the common stack.
         3. When one or more affected EGUs shares a common stack with one or more non-affected units, the CEMS, PM CPMS, and sorbent trap monitoring systems shall either be installed in the ducts leading to the common stack from each affected EGU; or the required monitoring systems may be installed in the common stack and all of the emissions measured at the common stack shall be attributed to the affected EGU(s), i.e., the calculated pollutant emission rate is assigned to each unit that shares the common stack..
         4. If the exhaust configuration of an affected EGU consists of a main stack and a bypass stack, the CEMS, PM CPMS, and sorbent trap monitoring systems shall be installed on both the main stack and the bypass stack; or, if it is not feasible to certify and quality-assure the data from a monitoring system on the bypass stack, the bypass hours must be monitored, recorded, and reported as a deviation from the monitoring requirements.
         5. If the exhaust flue from an affected EGU is configured such that emissions are controlled with a common control device or series of control devices that are discharged to the atmosphere through more than one stack or are fed into a single stack through two or more ducts, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall be installed in:

each of the multiple stacks; or

each of the ducts that feed into the stack; or

one of the multiple stacks or ducts and monitor the flows and dilution rates in all multiple stacks or ducts in order to determine total exhaust gas flow rate and pollutant mass emissions rate in accordance with the applicable limit; or

in the single stack.

* + - * 1. If the exhaust flue from an affected EGU is configured such that emissions are controlled with multiple parallel control devices or multiple series of control devices that are discharged to the atmosphere through more than one stack, the required CEMS, PM CPMS, and sorbent trap monitoring systems shall be installed in each of the multiple stacks; and the hourly flow-weighted average pollutant emission rates for the EGU shall be documented as follows:

the pollutant emission rate shall be calculated at each stack or duct for each hour in which valid data are obtained for all parameters;

the calculated hourly pollutant emission rate at each stack or duct shall be multiplied by the corresponding hourly stack gas flow rate at that stack or duct and the products shall be summed; and the result is divided by the total hourly stack gas flow rate for the EGU, summed across all of the stacks or ducts.

[40 CFR 63.10010(a)]

* + - 1. If an oxygen (O2 ) or carbon dioxide (CO2 ) CEMS is used to convert measured pollutant concentrations to the units of the applicable standard, the O2 or CO2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.,* at the outlet of the EGU and downstream of all emission control devices. The CEMS must be installed, certified, maintained, and operated in accordance with Part 75, however, Part 75 substitute data values cannot be used. Only quality-assured O2 or CO2 data can be used in the emissions calculations.

[40 CFR 63.10010(b)]

* + - 1. If a stack gas flow rate monitor is used either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 1 or 2 of Subpart UUUUU, the monitoring system must be installed, certified, maintained, and operated and on-going quality-assurance testing conducted in accordance with Part 75. Only unadjusted, quality-assured flow rate data can be used in the emissions calculations. Bias adjustment factors to the flow rate data cannot be applied and substitute flow rate data cannot be used in the calculations.

[40 CFR 63.10010(c)]

* + - 1. A moisture monitoring system used to make corrections for stack gas moisture content in converting pollutant concentrations to the units of the applicable standard in Table 1 or 2 of Subpart UUUUU, the system must be installed, certified, maintained, and operated in accordance with Part 75.

[40 CFR 63.10010(d)]

* + - 1. HCl and/or HF CEMS must be installed, certified, maintained, and operated and on-going quality-assurance testing conducted in accordance with Appendix B to Subpart UUUUU. A 30-boiler operating day rolling average HCl and/or HF emission rate shall be calculated and recorded in the units of the standard and updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all the valid hourly HCl or HF emission rates in the preceding 30 boiler operating days and is calculated using Equation A-5 in Appendix A of Subpart UUUUU.

[40 CFR 63.10010(e)]

* + - 1. For liquid oil-fired EGUs, if demonstrating compliance with the HCl and HF emission standards through quarterly stack testing, a site-specific monitoring plan must be developed as provided for in 40 CFR 63.10000(c)(2)(iii) and Table 7 to Subpart UUUUU.

[40 CFR 63.10010(k)]

* + - 1. A Hg CEMS or a sorbent trap monitoring system must be installed, certified, operated, maintained and on-going quality-assurance testing conducted in accordance with Appendix A to Subpart UUUUU.. A 30- (or 90-, if alternate emissions averaging is used) boiler operating day rolling average Hg emission rate must be calculated and recorded, in units of the standard and updated after each new boiler operating day. Each 30- (or 90-) boiler operating day rolling average emission rate shall be calculated in accordance with Section 6.2 of Appendix A, and is the average of all of the valid hourly Hg emission rates in the preceding 30- (or 90-) boiler operating days. Sorbent trap monitoring system data shall be reduced to an hourly basis in accordance with Section 7.1.4.3 of Appendix A.

[40 CFR 63.10010(g)]

* + - 1. PM CPMS, used to demonstrate continuous compliance with an operating limit, must be installed, calibrated, maintained, and operated, and the output of the system recorded as follows:
         1. The PM CPMS must be installed, certified, operated, and maintained in accordance with the procedures in the site-specific monitoring plan developed in accordance with 40 CFR 63.10000(d), and the system must meet the following requirements:

The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of the exhaust gas or representative sample; and the reportable measurement output from the PM CPMS may be expressed as milliamps, stack concentration, or other raw data signal.

The PM CPMS must have a cycle time (*i.e.*, period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

The PM CPMS must be capable, at a minimum, of detecting and responding to particulate matter concentrations of 0.5 mg/acm.

* + - * 1. For a new unit, the initial PM CPMS performance evaluation must be completed no later than October 13, 2012 or within 180 days of initial startup, whichever is later. For an existing unit, the initial performance evaluation must be completed no later than October 13, 2015.
        2. The arithmetic 30-boiler operating day rolling average shall be calculated for all of the hourly average PM CPMS output collected during all nonexempt boiler operating hours and the data must be expressed as milliamps, PM concentration, or other raw data signal value.
        3. PM CPMS data must be collected at all times the EGU is in operation and at a cycle time no longer than 60 minutes. All PM CPMS data collected must be used in assessing compliance with the operating limit, with the exception of data collected during the following periods, where any data collected will not be used in calculations:

during monitoring system malfunctions and repairs associated with monitoring system malfunctions;

during required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments);

during required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions;

during scheduled maintenance as defined in the site-specific monitoring plan;

during periods when the monitoring system is out-of-control (as specified in the site-specific monitoring plan);

during repairs associated with the monitoring system being out-of-control;

during required monitoring system quality assurance or quality control activities conducted during out-of-control periods; and

during periods of startup or shutdown.

The above exceptions must be recorded and included in the annual deviation report.

* + - * 1. Results of PM CPMS system performance audits, the date(s) and duration of malfunction and/or periods when the PM CPMS is out-of-control to the completion of the corrective actions necessary to return the system to operation consistent with the site-specific monitoring plan must be recorded and made available upon request.

[40 CFR 63.10010(h)]

* + - 1. If complying with the PM filterable emissions limit in lieu of metal HAP limits, PM CEMS may be used to demonstrate compliance. The compliance limit is expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable to the EGU as identified in Tables 1 or 2 of Subpart UUUUU. A PM CEMS shall be installed, certified, operated, and maintained, and the output of the CEMS recorded as specified below:
         1. The PM CEMS shall be installed and certified in accordance with the procedures and requirements specified in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to Part 60, using Method 5 at Appendix A-3 to Part 60 and ensuring that the front half filter temperature is maintained at 160° ± 14 °C (320° ± 25 °F).
         2. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).
         3. The PM CEMS must be operated and maintained in accordance with the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to Part 60, where:

a relative response audit (RRA) must be conducted at least annually; and

a relative correlation audit (RCA) must be conducted at least once every 3 years.

* + - * 1. The arithmetic 30-boiler operating day rolling average emissions shall be calculated for all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours.
        2. PM CEMS data must be collected at all times the EGU is in operation and for each hour in which valid data are obtained. The PM CEMS system shall collect and record the hourly average output data for all boiler operating hours with the exception of data collected during the following periods, where any data collected will not be used in calculations:

during monitoring system malfunctions and repairs associated with monitoring system malfunctions;

during required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments);

during required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions;

during periods when the monitoring system is out-of-control (as specified in the site-specific monitoring plan);

during repairs associated with the monitoring system being out-of-control;

during required monitoring system quality assurance or quality control activities conducted during out-of-control periods; and

during periods of startup or shutdown.

The above exceptions must be recorded and included in the annual deviation report.

* + - * 1. Results of PM CEMS system performance audits, the date(s) and duration of malfunction and/or periods when the PM CEMS is out-of-control to the completion of the corrective actions necessary to return the system to operation consistent with the site-specific monitoring plan must be recorded and made available upon request.

[40 CFR 63.10010(i)]

* + - 1. As an alternative to the performance test method specified in this rule, the permittee may choose to comply with the metal HAP emissions limits using CEMS approved in accordance with 40 CFR 63.7(f). If approved to use a HAP metals CEMS, the compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for the EGU(s) in tables 1 or 2. If approved, a HAP metals CEMS shall be installed, certified, operated, and maintained, and the output of the HAP metals CEMS recorded as follows:
         1. The HAP metals CEMS shall be installed and certified in accordance with the procedures and requirements in an approved site-specific test plan as required in 40 CFR 63.7(e).
         2. The reportable measurement output from the HAP metals CEMS must be expressed in units of the applicable emissions limit (*e.g.,* lb/MMBtu, lb/MWh) and in the form of a 30-boiler operating day rolling average.
         3. The HAP metals CEMS shall be operated and maintained in accordance with the procedures and criteria in a site-specific performance evaluation and quality control program plan as required in 40 CFR 63.8(d).
         4. The arithmetic 30-boiler operating day rolling average emissions shall be calculated for all of the hourly average HAP metals CEMS output data collected during all nonexempt boiler operating hours.
         5. HAP metals CEMS hourly average output data must be collected at all times the EGU is in operation and for each hour in which valid data are obtained. The HAP metals CEMS system shall collect and record the hourly average output data for all boiler operating hours with the exception of data collected during the following periods, where any data collected will not be used in calculations:

during monitoring system malfunctions and repairs associated with monitoring system malfunctions;

during required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments);

during required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions;

during periods when the monitoring system is out-of-control (as specified in the site-specific monitoring plan);

during repairs associated with the monitoring system being out-of-control;

during required monitoring system quality assurance or quality control activities conducted during out-of-control periods; and

during periods of startup or shutdown.

The above exceptions must be recorded and included in the annual deviation report.

* + - * 1. Results of HAP metals CEMS system performance audits, the date(s) and duration of malfunction and/or periods when the HAP metals CEMS is out-of-control to the completion of the corrective actions necessary to return the system to operation, consistent with the site-specific performance evaluation and quality control program plan, must be recorded and made available upon request.

[40 CFR 63.10010(j)]

## 40 CFR 63.10011   How do I demonstrate initial compliance with the emissions limits and work practice standards?

* + - 1. Initial compliance with each applicable emissions limit in Tables 1 or 2 of Part 63 Subpart UUUUU shall be demonstrated through a performance test.

[40 CFR 63.10011(a)]

* + - 1. If the EGU is subject to an operating limit in Table 4 to Subpart UUUUU, initial compliance with the HAP metals or filterable PM emission limits(s) is demonstrated through performance stack tests, where the operating limit is established. If electing to use a PM CPMS to demonstrate continuous performance, a site-specific operating limit shall be established in accordance with Table 4, Table 6, and 40 CFR 63.10007. Only the parametric data recorded during successful performance tests (*i.e.*, tests that demonstrate compliance with the applicable emissions limits) may be used to establish an operating limit.

[40 CFR 63.10011(b)]

* + - 1. For a liquid oil-fired unit where quarterly stack testing is used to demonstrate compliance with the HCl and/or HF standard(s) and site-specific parameter monitoring is used to demonstrate continuous performance, a site-specific operating limit must be established in accordance with Tables 4 and 6 to Subpart UUUUU, and 40 CFR 63.10007. Only the parametric data recorded during successful performance tests (*i.e.*, tests that demonstrate compliance with the applicable emissions limits) may be used to establish an operating limit.

[40 CFR 63.10011(b)]

* + - 1. Where using a CEMS or sorbent trap monitoring systems to measure a HAP (e.g., Hg or HCl) directly, the first 30-boiler operating day (or the 90-boiler operating day, if emissions averaging is used for Hg) rolling average emission rate obtained with certified CEMS after the applicable date in 40 CFR 63.9984 (or, if applicable, prior to that date, as described in 40 CFR 63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10011(c)(1)]

* + - 1. Where using a CEMS to measure SO2 or PM emissions, the first 30 boiler operating day average emission rate obtained with certified CEMS after the applicable date in 40 CFR 63.9984 (or, if applicable, prior to that date, as described in 40 CFR 63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable SO2 or filterable PM emission limit in Table 1 or 2 to Subpart UUUUU.

[40 CFR 63.10011(c)(2)]

* + - 1. For candidate LEE EGUs, the results of the performance testing described in 40 CFR 63.10005(h) are used to determine initial compliance with the applicable emission limit(s) in Table 1 or 2 to Subpart UUUUU and to determine whether the EGU qualifies for LEE status.

[40 CFR 63.10011(d)]

* + - 1. A Notification of Compliance Status containing the results of the initial compliance demonstration must be submitted in accordance with 40 CFR 63.10030(e).

[40 CFR 63.10011(e)]

* + - 1. The permittee must determine the fuel whose combustion produces the least uncontrolled emissions, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. This determination can take into account safety considerations.

[40 CFR 63.10011(f)]

* + - 1. The startup and shutdown requirements identified in Table 3 must be followed for each coal-fired, liquid oil-fired, and solid oil-derived fuel-fired EGU.

[40 CFR 63.10011(g)]

## Continuous Compliance Requirements

## 40 CFR 63.10020   How do I monitor and collect data to demonstrate continuous compliance?

* + - 1. Each affected EGU must be monitored and data collected in accordance with 40 CFR 63.10020 and the site-specific monitoring plan required by 40 CFR 63.10000(d).

[40 CFR 63.10020(a)]

* + - 1. The monitoring system must be operated and data collected at all required intervals and at all times that the affected EGU is in operation, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. Repairs to monitoring systems used to demonstrate compliance with Part 63 Subpart UUUUU must be completed as expeditiously as practicable, to return the monitoring system to operation.

[40 CFR 63.10020(b)]

* + - 1. Data recorded during EGU startup or shutdown, monitoring system malfunctions or out-of-control periods, repair associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities shall not be used in calculations used to report emissions or operating levels. The data collected during all other periods of operation must be used in assessing the operation of the control device and associated control system.

[40 CFR 63.10020(c)]

* + - 1. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements.

[40 CFR 63.10020(d)]

## 40 CFR 63.10021   How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

* + - 1. Continuous compliance must be demonstrated with each emissions limit, operating limit, and work practice standard in Tables 1 through 4 to Subpart UUUUU that applies to the EGU, in accordance with the monitoring specified in Tables 6 and 7 and 40 CFR 63.10021(b) through (g).

[40 CFR 63.10021(a)]

* + - 1. Except as otherwise provided in 40 CFR 63.10020(c), if a CEMS are used to measure SO2, PM, HCl, HF, or Hg emissions, or if using a sorbent trap monitoring system to measure Hg emissions, continuous compliance is demonstrated by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO2, O2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or 90-boiler operating day, if alternate emissions averaging is used for Hg) rolling average basis, updated at the end of each new boiler operating day. Equation 8 shall be used to determine the 30- (or 90-, if applicable) boiler operating day rolling average.

Equation 8

n

Boiler operating day average = ∑ Heri **/** n

i=1

Where:

Heri = the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30- (or 90-, if applicable) boiler operating days.

[40 CFR 63.10021(b)]

* + - 1. If PM CPMS data is used to measure compliance with an operating limit in Table 4 to Subpart UUUUU, the PM CPMS output data must be recorded for all periods when the process is operating and the PM CPMS is not out-of-control. Continuous compliance is demonstrated by using all quality-assured hourly average data collected by the PM CPMS for all operating hours, to calculate the arithmetic average operating parameter in units of the operating limit (e.g., milliamps, PM concentration, raw data signal) on a 30 operating day rolling average basis, updated at the end of each new boiler operating day. Equation 9 shall be used to determine the 30-boiler operating day average.

Equation 9

n

Boiler operating day average = ∑ Hpvi **/** n

i=1

Where:

Hpvi = the hourly parameter value for hour i and n is the number of valid hourly parameter values collected over 30 boiler operating days.

[40 CFR 63.10021(c)]

* + - 1. Following an exceedance of the 30-boiler operating day PM CPMS average value from the established operating parameter limit for an EGU subject to the emissions limits in Table 1 to this subpart, the permittee must:
         1. visually inspect the air pollution control device within 48 hours of the exceedance;
         2. if the inspection of the air pollution control device identifies the cause of the exceedance, corrective action must be taken as soon as possible and the PM CPMS must be returned to recording measurements within the established value; and
         3. within 45 days of the exceedance or at the time of the annual compliance test, whichever comes first, a PM emissions compliance test shall be conducted to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit (additional testing is not required for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test).

PM CPMS exceedances of the operating limit for an EGU, subject to the emissions limits in Table 1 of Subpart UUUUU, that lead to more than four required performance tests in any 12-month rolling period constitutes a separate violation.

[40 CFR 63.10021(c)(1) and (2)]

* + - 1. If quarterly performance testing is used to demonstrate compliance with one or more applicable emissions limits in Table 1 or 2 to this subpart:
         1. performance testing may be skipped in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year;
         2. the performance test must be conducted as defined in Table 5 to Subpart UUUUU and the results calculated and converted to units of the applicable emissions standard;
         3. for a liquid oil-fired unit, site-specific monitoring must be conducted in accordance with the requirements of 40 CFR 63.10000(c)(2)(iii), to ensure compliance with the HCl and HF emission limits in Tables 1 and/or 2 to Subpart UUUUU; and
         4. monitoring must meet the general operating requirements provided in 40 CFR 63.10020(a).

[40 CFR 63.10021(d)]

* + - 1. For existing EGUs without neural networks the permittee shall conduct an initial tune-up on or before 10/13/15. For existing EGUs employing neural network combustion controls the permittee shall conduct an initial tune-up on or before 10/13/16, as allowed by 40 CFR 63.1005(f). For new EGUs the permittee shall have conducted and recorded an initial tune-up on or before 10/13/12. If a tune-up occurs prior to the date required by Part 63 Subpart UUUUU, the permittee shall maintain adequate records to demonstrate compliance has been met.

[40 CFR 63.10005(f)] and [40 CFR 63.9984]

* + - 1. The first periodic performance tune-up of the EGU(s) shall be conducted as part of the initial compliance demonstration. Notwithstanding this requirement, the first burner inspection may be delayed until the next scheduled unit outage provided the requirements of 40 CFR 63.10005 are met. Subsequently, an inspection of the burner must be performed at least once every 36 calendar months; unless the EGU employs neural network combustion optimization during normal operations, then an inspection of the burner and combustion controls must be performed at least once every 48 calendar months.

As applicable to each EGU, the performance tune-up should include:

* + - * 1. Inspection of the burner and combustion controls and cleaning or replacement of any components of the burner or combustion controls, as necessary, upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

burner or combustion control component parts needing replacement that affect the ability to optimize NOX and CO must be installed within 3 calendar months after the burner inspection; and

burner or combustion control component parts that do not affect the ability to optimize NOX and CO may be installed on a schedule determined by the permittee;

* + - * 1. Inspection of the flame pattern with any adjustments to the burner or combustion controls necessary to optimize the flame pattern (the adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type);
        2. Evaluate windbox pressures and air proportions, with any needed adjustments or repair to dampers, actuators, controls, and sensors;
        3. Inspection of the system controlling the air-to-fuel ratio and ensuring that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O2 probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;
        4. Optimize combustion to minimize generation of CO and NOX . This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NOX optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles; and
        5. While operating at full load or the predominantly operated load, the concentration of CO and NOX in the effluent stream is measured in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Portable CO, NOX and O2 monitors may be used for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system.

[40 CFR 63.10021(e)(1) through (7)]

* + - 1. The permittee shall maintain a record of each inspection, documenting the information identified above (“check list” from 40 CFR 63.10021(e)). The following information shall be collected and recorded in an annual report, that, upon request, must be submitted to the Administer of the U.S. EPA or a representative of the Ohio EPA:
         1. the concentrations of CO and NOX in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems;
         2. a description of any corrective actions taken as a part of the combustion adjustment; and
         3. if the unit is physically and legally capable of using more than one type of fuel during the reporting period, the type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment made during the tune up.

[40 CFR 63.10021(e)(8)]

* + - 1. If the first required tune-up is performed as part of the initial compliance demonstration, the date of the tune-up must be reported in hard copy, as specified in 40 CFR 63.10030; and electronically, as specified in 40 CFR 63.10031. The date of each subsequent tune-up must be reported electronically, as specified in 40 CFR 63.10031. If the first tune-up is not conducted as part of the initial compliance demonstration, but is postponed until the next unit outage, the date of that tune-up and all subsequent tune-ups must be reported electronically, in accordance with 40 CFR 63.10031.

[40 CFR 63.10021(e)(9)]

## 

## 40 CFR 63.10023   How do I establish my PM CPMS operating limit and determine compliance with it?

* + - 1. During the initial performance test of a liquid oil-fired EGU or any such subsequent performance test that demonstrates compliance with the filterable PM, individual HAP metals or total HAP metals limit, including Hg, in Table 1 or 2 of Subpart UUUUU using PM CPMS, all hourly average output values (e.g., milliamps, stack concentration, or other raw data signal) from the PM CPMS shall be recorded for the periods corresponding to the test runs (e.g., nine 1-hour average PM CPMS output values for three 3-hour test runs).

[40 CFR 63.10023(a)]

* + - 1. Where demonstrating continuous compliance using PM CPMS, the operating limit shall be determine as follows. After each repeated performance test either the existing operating limit must be re-verified or a new operating limit must be established.
         1. For an existing EGU, the operating limit shall be determined based on the highest 1-hour average PM CPMS output value recorded during the performance test.
         2. For a new EGU, the operating limit shall be determined as follows:

If the PM performance test demonstrates that the PM emissions do not exceed 75% of the emissions limit, the average PM CPMS value recorded during the PM compliance test shall be used; the milliamp equivalent of zero output from the PM CPMS, and the average PM result of the compliance test shall be used to establish the operating limit.

The operating limit shall be calculated by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 compliance test using the following procedures:

The PM CPMS instrument zero output is determined with one of the following procedures.

Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

The zero point can also can be obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when the process is not operating, but the fans are operating or the EGU is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

If none of the steps above are possible, a zero output value provided by the manufacturer must be used.

The PM CPMS instrument average (*x*) in milliamps, and the average of the corresponding three PM compliance test runs (*y*), is determined using Equations 10.

\_ n

x = 1/n ∑ Xi Equation 10A

i=1

\_ n

y = 1/n ∑ Yi Equation 10B

i=1

Where:

Xi = the PM CPMS data points for run i of the performance test,

Yi = the PM emissions value (in lb/MWh) for run i of the performance test, and

n = the number of data points.

With the PM CPMS instrument zero expressed in milliamps, the three run average PM CPMS milliamp value, and the three run average PM emissions value (in lb/MWh) from the compliance runs, determine a relationship of PM lb/MWh per milliamp is determined using Equation 11.

R = y / (x – z) Equation 11

Where:

R = the relative PM lb/MWh per milliamp for the PM CPMS,

y = the three run average PM lb/MWh,

x = the three run average milliamp output from the PM CPMS, and

z = the milliamp equivalent of the instrument zero determined in **(a)** above.

The source specific 30-day rolling average operating limit is determined using the PM lb/MWh per milliamp value from Equation 11 in Equation 12, below. This sets the operating limit at the PM CPMS output value corresponding to 75% of the emission limit.

OL = z + (0.75 x L) / R Equation 12

Where:

OL = the operating limit for the PM CPMS on a 30-day rolling average, in milliamps,

L = the EGU PM emissions limit in lb/MWh,

z = the instrument zero in milliamps, determined from **(a)** above, and

R = the relative PM lb/MWh per milliamp for the PM CPMS, from Equation 11.

If the PM compliance test demonstrates the PM emissions exceed 75% of the applicable emissions limit, the average PM CPMS value recorded during the PM compliance test demonstrating compliance with the PM limit will be used to establish the operating limit.

The operating limit shall be determined by averaging the PM CPMS milliamp output corresponding to the three PM performance test runs that demonstrate compliance with the emission limit using Equation 13.

n

Oh = 1/n ∑ Xi Equation 13

i=1

Where:

Xi = the PM CPMS data points for all runs i,

n = the number of data points, and

Oh = the site specific operating limit, in milliamps.

The PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

The PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to two times the allowable emission limit. If the PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times the allowable emission limit.

During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, all milliamp output values from the PM CPMS must be recorded and averaged for the periods corresponding to the compliance test runs.

For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signal corresponding to each PM compliance test run.

The process and control equipment must be operated and maintained such that the 30 operating day average PM CPMS output does not exceed the operating limit determined above.

[40 CFR 63.10023(b) and (c)]

## Notification, Reports, and Records

## 40 CFR 63.10030   What notifications must I submit and when?

* + - 1. The permittee shall develop and, if requested, submit a site-specific test plan to the Director (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) for evaluation and approval, at least 60 calendar days before the performance test is scheduled to take place and simultaneously with the notification of intention to conduct a performance test, unless the Director agrees upon a different date. The site-specific test plan shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The test plan shall include, at a minimum, the following elements: a test program summary; the test schedule; data quality objectives; and both an internal and external quality assurance (QA) program.

The internal quality assurance (QA) program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (e.g.: sampling and analysis of replicate samples). The external QA program shall include, at a minimum, the following elements:

* + - * 1. provisions for a test method performance audit during the performance test, in order to provide a measure of test data bias;
        2. provisions for systems audits, instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities; and
        3. provisions to provide appropriate notice (60 days), to the Director, of the performance test, performance audit, and systems audit, allowing the regulating agency the opportunity to arrange for their own on-site evaluation.

The performance audits shall consist of blind audit samples, provided by an accredited audit sample provider, which shall be taken and analyzed during each performance test. The Director may request additional relevant information following the receipt and review of the site-specific test plan.

[40 CFR 63.7(b) & (c)]

* + - 1. The permittee shall develop a site-specific continuous monitoring system (CMS) performance evaluation test plan and shall submit a copy to both the Central Office and the District Office or local air agency of the Ohio EPA Division of Air Pollution Control (DAPC) for evaluation and/or approval. A performance evaluation of each CMS shall be conducted in accordance with the approved site-specific performance evaluation test plan. The test evaluation of the CMS(s) shall demonstrate the precision and accuracy of the equipment and completeness of the data collected. The site-specific performance evaluation test plan shall require all CMS (systems required by rule) be maintained in continuous operation during process operations. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance (QA) program.
         1. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance.
         2. The external QA program shall include, at a minimum, provisions for systems audits and validation of instrument calibrations, data collection, sample logging, and documentation of quality control data and field maintenance activities and must also address the following requirements:

each CMS (parameter monitor or sampling probe) shall be installed at a location that accurately measures the exhaust emissions representative of the emissions unit (e.g., on or downstream of the last control device) and accurately measures the process and/or the control device parameters;

performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

performance evaluation procedures and acceptance criteria, including calibration frequency, results, and records.

The permittee shall submit the site-specific performance evaluation test plan to the Central Office and District or local offices of the Ohio EPA DAPC at least 60 days before the performance test or performance evaluation is scheduled to begin, or by a mutually agreed upon (by DAPC Central Office) date. The DAPC may request additional relevant information following the review of a site-specific performance evaluation test plan. All CMS shall be installed, operational, and the data verified, as specified in the NESHAP, either prior to or in conjunction with conducting performance tests required under 40 CFR 63.7.

[40 CFR 63.8(e)(1), (2), and (3)]

* + - 1. The Director shall notify the permittee of the intention to deny approval of the site-specific test plan within 30 calendar days after receipt of the original plan or within 30 calendar days after receipt of any supplementary information requested by the Director. If the permittee is requesting an alternative test method or alternative method of determining compliance, the written approval of the Administrator of the US. EPA will need to be acquired and submitted, supporting the alternative method of compliance.

[40 CFR 63.7(c)(3)]

* + - 1. Following the initial performance test and each sequential required determination and/or demonstration of compliance, the permittee shall submit to the Director (appropriate Ohio EPA Division of Air Pollution Control, District Office or local air agency) the Notification of Compliance Status Report with the applicable NESHAP, signed by the owner or operator or other responsible official who is certifying the accuracy and completeness of the report. The compliance notification shall be postmarked no later than 30 days following the completion of the compliance demonstration for the initial performance test, and again no later than 30 days following the completion of each subsequent required performance test. The Notification of Compliance Status Report shall include the following information:
         1. the NESHAP (applicable subpart) and emissions or other limitation(s) applicable to the emissions unit;
         2. the method(s) that were used to determine compliance with each applicable limitation and/or requirement and the date each compliance demonstration was conducted;
         3. the results of any required performance tests, opacity or visible emission observations, CMS performance evaluations, and/or other monitoring procedures or methods, or inspections that were conducted to demonstrate compliance;
         4. the methods that will be used for determining continuing compliance, including a description of the monitoring, the records maintained of the process and/or equipment parameters, and test methods;
         5. the type and quantity of hazardous air pollutants (or surrogate pollutants, if defined in the NESHAP) emitted by the emissions unit, measured in accordance with the test methods specified in the NESHAP, and reported in the appropriate units and averaging times required to demonstrate compliance;
         6. the analysis demonstrating whether the emissions unit is a major source or an area source and the supporting potential and controlled emissions data to document the determination;
         7. a description of the air pollution control equipment (or control method) for each emission point and the control efficiency (percent) for each control device/method for each HAP; and
         8. a statement, signed by a responsible official, as to whether the affected emissions unit has met the relevant standards, limitations, and/or other requirements of the NESHAP; and if not, the proposed method and time-line for achieving compliance.

A written report of the results of the CMS performance evaluation shall be submitted simultaneously with the results of the performance test required under 40 CFR 63.7; or within 30 days of completion of the performance evaluation. The written report shall include the raw data from the performance evaluation and the results.

Where a COMS is used to determine opacity compliance during any performance test required under the NESHAP, upon the request of the Director, the permittee shall also submit two (or three, if requested) copies of a written report of the results of the COMS performance evaluation at least 15 calendar days before the performance test required under the NESHAP.

[40 CFR 63.8(e)(5)], [40 CFR 63.9(h)], [40 CFR 63.10(e)(1) and (2)], and [OAC 3745-15-04(A)]

* + - 1. The permittee of an EGU(s) with an initial startup date before 4/16/12 should have notified the Director (appropriate Ohio EPA Division of Air Pollution Control District Office or local air agency) or U.S. EPA Administrator, in writing, that the EGU(s) is/are subject to Part 63 Subpart UUUUU not later than 120 calendar days after the effective date; or this report should have been submitted on or before 8/14/12. Any new EGU with a start startup date on or after 4/16/12 shall submit an Initial Notification report no later than 15 days after the date of startup. This report shall (or should have) provide the following information:
         1. the name and address of the owner or operator;
         2. the address (i.e., physical location) of the emissions unit;
         3. an identification of the relevant standard (NESHAP), the applicable limitation(s) or other requirements that is/are the basis of the notification, and the emission unit's compliance date;
         4. a brief description of the nature, size, design, and method of operation of the emissions unit and an identification of the types of emission points subject to the NESHAP and types of hazardous air pollutants emitted; and
         5. a statement of whether the emissions unit is a major source or an area source.

The permittee shall submit the notifications identified in 40 CFR 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to the EGUs by the dates specified in the applicable paragraphs of Part 63 Subpart A.

[63.10030(a), (b) and (c)] and [40 CFR 63.9(b)(2), (4), and (5)]

* + - 1. A Notification of Intent to conduct a performance test must be submitted to the regulating authority (appropriate Ohio EPA Division of Air Pollution Control District Office or local air agency and/or U.S. EPA Administrator) at least 30 days before the performance test is scheduled to begin.

[63.10030(d)]

* + - 1. Following the initial compliance demonstration, identified in 40 CFR 63.10011, the Notification of Compliance Status must be submitted before the close of business on the 60th day following the completion of the compliance demonstration. Unless otherwise identified in 40 CFR 63.9984, for new EGUs the initial compliance demonstration was required to have been completed by 10/13/12 or for a newer EGU within 180 days following startup; and for existing EGUs the initial compliance demonstration must be completed by 10/13/15. The Notification of Compliance Status report, therefore for existing units would need to be submitted initially by 12/12/15; and for a new unit, initially within 60 days of the compliance demonstration that is completed within 180 days of startup. Each Notification of Compliance report (initial and subsequent) must include the following information, as applicable.
         1. a description of each subject EGU(s) including identification of the:

subcategory;

the design capacity;

the air pollution control equipment and control efficiency demonstrated for each applicable pollutant it controls (per 63.9(h)(2)(i)(F));

the fuel(s) burned, including a statement that the fuel is a non-waste under 40 CFR 241.3, and

If more than one fuel is burned, the justification for the selection of fuel(s) burned during the performance test;

* + - * 1. identification of each method used to demonstrate compliance with each applicable emission limit, i.e., through performance testing; fuel moisture analyses; performance testing with operating limits (e.g., use of PM CPMS); CEMS; or a sorbent trap monitoring system;
        2. summary of the results of each performance test and fuel analyses and the calculations conducted to demonstrate compliance including all established operating limits;
        3. Identification of any compliance demonstration using emissions averaging.
        4. a signed certification that each EGU has met all applicable emission limits and work practice standards;
        5. if there has been a deviation from any emission limit, work practice standard, or operating limit, a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation.
        6. in addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following:

a summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

if qualifying for a LEE and conducting stack tests once every 3 years, consistent with 40 CFR 63.10006(b):

the date of the last three stack tests;

a comparison of the emission level achieved in the last three stack tests to the 50% emission limit threshold required in 40 CFR 63.10006(i); and

a statement as to whether there have been any operational changes since the last stack test that could increase emissions; and

certifications of compliance signed by a responsible official stating that:

each EGU complies with the requirements in 40 CFR 63.10021(a) to demonstrate continuous compliance.” and

no secondary materials that are solid waste were combusted in any affected unit.

[40 CFR 63.9(h)(2)(ii)], [40 CFR 63.10030(e)], [40 CFR 63.10005(k)], and [40 CFR 63.9984]

## 40 CFR 63.10031   What reports must I submit and when?

* + - 1. The permittee shall submit semiannual reports that contain the information identified in 40 CFR 63.10031 and Table 8 to Subpart UUUUU. If required or electing to continuously monitor Hg, HCl, and/or HF emissions, the electronic reports must also be submitted at the specified frequency and as required under Appendix A and/or Appendix B to the subpart.

[40 CFR 63.10031(a)] and [40 CFR 63.10021(f)]

* + - 1. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), each compliance report must be submitted semiannually and according to the following requirements:
         1. The first compliance report shall cover the period beginning on the compliance date specified in 40 CFR 63.9984, i.e. 4/16/12 or upon startup for a new EGU and 4/16/15 for an existing EGU, and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date.
         2. The first compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date.
         3. Each subsequent compliance report must cover the next semiannual reporting period from January 1 through June 30 or July 1 through December 31.
         4. The semiannual compliance reports must be postmarked or submitted electronically no later than July 31 and January 31, whichever date is the first date following the end of the reporting period.
         5. For each affected EGU that is subject to permitting regulations under Part 70 or Part 71, where the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A) that are different from the dates above, the first and subsequent semiannual compliance reports may be submitted in accordance with the dates established in the existing permit.

[40 CFR 63.10031(b) and (e)]

* + - 1. The semiannual compliance reports must contain the following information:
         1. The summary report required by 40 CFR 63.10(e)(3)(vi), entitled “Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance” shall be included in the semiannual compliance report and shall contain the following information:

the company name and address of the affected source;

an identification of each hazardous air pollutant monitored at the affected source;

the beginning and ending dates of the reporting period;

a brief description of the process units (e.g., subcategory, design capacity, fuel, control equipment);

the emission standards and operating parameter limitations specified in Subpart UUUUU for each affected EGU;

the monitoring equipment manufacturer(s) and model number(s);

the date of the latest certification and/or audit for each CMS;

the total operating time of each EGU during the reporting period;

an emission data summary and summary of monitored control system parameters, including:

the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases),

the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and

a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

a CMS performance summary (CEMS, PM CPMS, and control system parameter monitors), including:

the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases),

the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and

a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

a description of any changes in CMS, processes, or controls since the last reporting period;

* + - * 1. The total fuel use by each EGU subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
        2. Identify any new types of fuel burned during the reporting period. If a new fuel(s) was/were burned, the date of the performance test was conducted for each.
        3. The date of the most recent tune-up for each EGU subject to the requirement to conduct a performance tune-up according to 40 CFR 63.10021(e); and the date of the most recent burner inspection if it was not done every 36 (or 48) months and was delayed until the next scheduled unit shutdown.
        4. Excess emissions or exceedances of process or control system parameters shall include all the information required in 40 CFR 63.10(c)(5) through (c)(13) and 40 CFR 63.8(c)(7) and (8):

the date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

the date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7);

the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in Subpart UUUUU, that occurs during startups, shutdowns (emissions standards not apply during startup shutdown, 63.10000(a)), and malfunctions of the EGUs;

the specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in Subpart UUUUU, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

the nature and cause of any malfunction (if known);

the corrective action taken or preventive measures adopted;

the nature of the repairs or adjustments to the CMS that was inoperative or out of control;

the total process operating time during the reporting period;

the date and time (start and end time) identifying each period during which the CMS was out of control and descriptions of corrective actions taken;

the date a CMS fails a performance test audit, relative accuracy audit, relative accuracy test audit, or linearity test audit;

* + - * 1. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
        2. If there is a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description of each type of malfunction which caused or may have caused any exceedance to an applicable emission limitation.
        3. the name, title, and signature of the responsible official who is certifying the accuracy of the report; and
        4. the date of the report.

[40 CFR 63.10031(c), (d), and (g)]

* + - 1. Within 60 days after the date of completing each performance test, the results of the performance tests required by Part 63 Subpart UUUUU must be submitted to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of U.S. EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. **A**t the discretion of the delegated authority, these reports, including the confidential business information, must also be submitted to the delegated authority in the format specified by such state.

[40 CFR 63.10031(f)]

* + - 1. Within 60 days after the date of completing each CEMS (SO2 , PM, HCl, HF, and Hg) performance evaluation test, as defined in 40 CFR 63.2 and required by Part 63 Subpart UUUUU, the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) must be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (*http://www.epa.gov/ttn/chief/ert/index.html*). Only RATA data compounds listed on the ERT Web site are subject to this requirement. **A**t the discretion of the Ohio EPA, these RATAs shall also be submitted to Central Office and the delegated district or local office, in the format specified by the Director. The permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and Subpart UUUUU.

[40 CFR 63.10031(f)(1)]

-----------------------------------------------

If submitting Confidential Business Information:

* + - 1. Within 60 days after the date of completing each performance test, the results of the performance tests required by Part 63 Subpart UUUUU must be submitted to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of U.S. EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. **If** the permittee is claiming that some of the information being submitted for performance tests is confidential business information (CBI), a complete ERT file, including information claimed to be CBI, must be submitted on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to U.S EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described above. **A**t the discretion of the Ohio EPA, these reports, including the confidential business information, must also be submitted to the delegated office, in the format specified by the Director.

[40 CFR 63.10031(f)]

* + - 1. Within 60 days after the date of completing each CEMS (SO2 , PM, HCl, HF, and Hg) performance evaluation test, as defined in 40 CFR 63.2 and required by Part 63 Subpart UUUUU, the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) must be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (*http://www.epa.gov/ttn/chief/ert/index.html*). Only RATA data compounds listed on the ERT Web site are subject to this requirement. If the permittee is claiming that some of the information being submitted for RATAs is confidential business information (CBI), a complete ERT file, including information claimed to be CBI, must be submitted on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to U.S. EPA and the same ERT file with the CBI omitted to EPA via CDX as described above. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. **A**t the discretion of the Ohio EPA, these RATAs shall also be submitted to Central Office and the delegated district or local office, in the format specified by the Director. The permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and Subpart UUUUU.

[40 CFR 63.10031(f)(1)]

-------------------------------------------

* + - 1. For a PM CEMS, PM CPMS, or approved alternative monitoring using a HAP metals CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, quarterly reports must be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The appropriate electronic reporting form in CEDRI must be used or an alternate electronic file may be provided that is consistent with EPA's reporting form output format. For each reporting period, the quarterly reports must include all of the calculated 30-boiler operating day rolling average values derived from the CEMS and PM CPMS.

[40 CFR 63.10031(f)(2)]

* + - 1. Reports for an SO2 CEMS, a Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to Subpart UUUUU and 40 CFR 63.10021(f).

[40 CFR 63.10031(f)(3)]

* + - 1. The semiannual compliance reports and the initial notification of compliance status shall be submitted to U.S. EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through U.S. EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The appropriate electronic reporting form in CEDRI must be used or an alternate electronic file may be provided that is consistent with EPA's reporting form output format.

[40 CFR 63.10031(f)(4)]

* + - 1. All other reports required by Part 63 Subpart UUUUU and not identified in paragraphs 63.10030(f)(1) through (4) must be sent to the Administrator at: EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507. If acceptable to both the Administrator and the permittee, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs 63.10030 (f)(1), (2), and (3) in paper format.

[40 CFR 63.10031(f)(5)] and [40 CFR 63.13(a)]

## 40 CFR 63.10032   What records must I keep?

## 40 CFR 63.10033   In what form and how long must I keep my records?

* + - 1. The permittee shall keep the following records for a period of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record:
         1. a copy of each notification and report that is submitted to comply with Part 63 Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted in accordance with the requirements of 40 CFR 63.10(b)(2)(xiv);
         2. records of performance stack tests, fuel analyses, or other compliance demonstrations, and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).
         3. if required or electing to demonstrate compliance by continuously monitoring Hg, HCl, and/or HF emissions, the records required under Appendix A and/or Appendix B must also be maintained.
         4. the following records for each CEMS and CPMS:

the records described in 40 CFR 63.10(b)(2)(vi) through (xi):

each period during which a CMS is malfunctioning or inoperative, including out-of-control periods;

all required measurements needed to demonstrate compliance with a relevant standard, including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report, collected in accordance with and as allowed by 40 CFR 63.10(b)(2)(vii);

all results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

all CMS calibration checks; and

all adjustments and maintenance performed on CMS;

previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3);

request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i); and

records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

* + - * 1. the records required in Table 7 to Part 63 Subpart UUUUU, including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit that applies to each EGU subject to the subpart;
        2. for each EGU subject to an emission limit in Tables 1 or 2 to Part 63 Subpart UUUUU, the following records:

the monthly fuel usage of each EGU, including the type(s) of fuel and amount(s);

if combusting non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1):

records documenting how the secondary material meets each of the legitimacy criteria;

if a fuel has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2; and

if the fuel has received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the records which document how the fuel satisfies the requirements of the petition process; and

for an EGU that qualifies as an LEE under 40 CFR 63.10005(h), the annual records that document that emissions from the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and a statement that there was no change in source operations, including fuel composition and operation of air pollution control equipment, that would cause emissions of the pollutant to increase within the past year;

* + - * 1. if demonstrating compliance through emissions averaging in accordance with with 40 CFR 63.10009, a copy of the emissions averaging implementation plan required in 40 CFR 63.10009(g), all calculations required under 40 CFR 63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with 40 CFR 63.10022;
        2. the occurrence and duration of each startup and/or shutdown;
        3. the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment;
        4. actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation;
        5. the type(s) and amount(s) of fuel used during each startup or shutdown; and
        6. for an EGU qualified as a limited-use liquid oil-fired EGU, records of the type(s) and amount(s) of fuel use in each calendar quarter to document that the capacity factor limitation for that subcategory is met.

These records must be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The remaining 3 years may be kept off-site, but must be made available upon request.

[40 CFR 63.10032] and [40 CFR 63.10033]

-----------------------------------------------------------------------------------------------------------------------------------------------------

## Other Requirements and Information

## 40 CFR 63.10040   What parts of the General Provisions apply to me? See Summary Table

Table 9 to this subpart shows which parts of the General Provisions in 40 CFR 40 CFR 63.1 through 63.15 apply to you.

## 40 CFR 63.10041   Who implements and enforces this subpart? (no terms)

## 40 CFR 63.10042   What definitions apply to this subpart? (no terms)

Terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2 (the General Provisions), and in this section as follows:

*Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

*Anthracite coal* means solid fossil fuel classified as anthracite coal by American Society of Testing and Materials (ASTM) Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see 40 CFR 63.14).

*Bituminous coal* means coal that is classified as bituminous according to ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see 40 CFR 63.14).

*Boiler operating day* means a 24-hour period between midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for the fuel to be combusted the entire 24-hour period.

*Capacity factor* for a liquid oil-fired EGU means the total annual heat input from oil divided by the product of maximum hourly heat input for the EGU, regardless of fuel, multiplied by 8,760 hours.

*Coal* means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see 40 CFR 63.14), and coal refuse. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, coal derived gases (not meeting the definition of natural gas), solvent-refined coal, coal-oil mixtures, and coal-water mixtures, are considered “coal” for the purposes of this subpart.

*Coal-fired electric utility steam generating unit* means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that burns coal for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

*Coal refuse* means any by-product of coal mining, physical coal cleaning, and coal preparation operations (e.g., culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

*Cogeneration* means a steam-generating unit that simultaneously produces both electrical and useful thermal (or mechanical) energy from the same primary energy source.

*Cogeneration unit* means a stationary, fossil fuel-fired EGU meeting the definition of “fossil fuel-fired” or stationary, integrated gasification combined cycle:

(1) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and

(2) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:

(i) For a topping-cycle cogeneration unit,

(A) Useful thermal energy not less than 5 percent of total energy output; and

(B) Useful power that, when added to one-half of useful thermal energy produced, is not less than 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.

(ii) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.

(3) Provided that the total energy input under paragraphs (2)(i)(B) and (2)(ii) of this definition shall equal the unit's total energy input from all fuel except biomass if the unit is a boiler.

*Combined-cycle gas stationary combustion turbine* means a stationary combustion turbine system where heat from the turbine exhaust gases is recovered by a waste heat boiler.

*Common stack* means the exhaust of emissions from two or more affected units through a single flue.

*Continental liquid oil-fired subcategory* means any oil-fired electric utility steam generating unit that burns liquid oil and is located in the continental United States.

*Deviation.* (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, work practice standard, or monitoring requirement; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

*Distillate oil* means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM Method D396-10, “Standard Specification for Fuel Oils” (incorporated by reference, see 40 CFR 63.14).

*Dry flue gas desulfurization technology,* or *dry FGD,* or *spray dryer absorber* ( *SDA* ), or *spray dryer,* or *dry scrubber* means an add-on air pollution control system located downstream of the steam generating unit that injects a dry alkaline sorbent (dry sorbent injection) or sprays an alkaline sorbent slurry (spray dryer) to react with and neutralize acid gases such as SO2 and HCl in the exhaust stream forming a dry powder material. Alkaline sorbent injection systems in fluidized bed combustors (FBC) or circulating fluidized bed (CFB) boilers are included in this definition.

*Dry sorbent injection* (DSI) means an add-on air pollution control system in which sorbent (e.g., conventional activated carbon, brominated activated carbon, Trona, hydrated lime, sodium carbonate, etc.) is injected into the flue gas steam upstream of a PM control device to react with and neutralize acid gases (such as SO2 and HCl) or Hg in the exhaust stream forming a dry powder material that may be removed in a primary or secondary PM control device.

*Electric Steam generating unit* means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with integrated gasification combined cycle gas turbines; nuclear steam generators are not included) for the purpose of powering a generator to produce electricity or electricity and other thermal energy.

*Electric utility steam generating unit (****EGU****)* means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit.

*Emission limitation* means any emissions limit, work practice standard, or operating limit.

*Excess emissions* means, with respect to this subpart, results of any required measurements outside the applicable range (e.g., emissions limitations, parametric operating limits) that is permitted by this subpart. The values of measurements will be in the same units and averaging time as the values specified in this subpart for the limitations.

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60, 61, and 63; requirements within any applicable state implementation plan; and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Flue gas desulfurization system* means any add-on air pollution control system located downstream of the steam generating unit whose purpose or effect is to remove at least 50 percent of the SO2 in the exhaust gas stream.

*Fossil fuel* means natural gas, oil, coal, and any form of solid, liquid, or gaseous fuel derived from such material.

*Fossil fuel-fired* means an electric utility steam generating unit (EGU) that is capable of combusting more than 25 MW of fossil fuels. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in its operating permit and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired means any EGU that fired fossil fuels for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after the applicable compliance date.

*Fuel type* means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, and residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

*Fluidized bed boiler,* or *fluidized bed combustor,* or *circulating fluidized boiler,* or *CFB* means a boiler utilizing a fluidized bed combustion process.

*Fluidized bed combustion* means a process where a fuel is burned in a bed of granulated particles which are maintained in a mobile suspension by the upward flow of air and combustion products.

*Gaseous fuel* includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, solid oil-derived gas, refinery gas, and biogas.

*Generator* means a device that produces electricity.

*Gross output* means the gross useful work performed by the steam generated and, for an IGCC electric utility steam generating unit, the work performed by the stationary combustion turbines. For a unit generating only electricity, the gross useful work performed is the gross electrical output from the unit's turbine/generator sets. For a cogeneration unit, the gross useful work performed is the gross electrical output, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls), or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (*i.e.,* steam delivered to an industrial process).

*Heat input* means heat derived from combustion of fuel in an EGU (synthetic gas for an IGCC) and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, etc.

*Integrated gasification combined cycle electric utility steam generating unit* or *IGCC* means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that burns a synthetic gas derived from coal and/or solid oil-derived fuel for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year in a combined-cycle gas turbine. No solid coal or solid oil-derived fuel is directly burned in the unit during operation.

*ISO conditions* means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

*Lignite coal* means coal that is classified as lignite A or B according to ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see 40 CFR 63.14).

*Limited-use liquid oil-fired subcategory* means an oil-fired electric utility steam generating unit with an annual capacity factor of less than 8 percent of its maximum or nameplate heat input, whichever is greater, averaged over a 24-month block contiguous period commencing April 16, 2015.

*Liquid fuel* includes, but is not limited to, distillate oil and residual oil.

*Monitoring system malfunction or out of control period* means any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 Btu per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

*Natural gas-fired electric utility steam generating unit* means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that is not a coal-fired, oil-fired, or IGCC electric utility steam generating unit and that burns natural gas for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

*Net-electric output* means the gross electric sales to the utility power distribution system minus purchased power on a calendar year basis.

*Non-continental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Non-continental liquid oil-fired subcategory* means any oil-fired electric utility steam generating unit that burns liquid oil and is located outside the continental United States.

*Non-mercury (Hg) HAP metals* means Antimony (Sb), Arsenic (As), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Manganese (Mn), Nickel (Ni), and Selenium (Se).

*Oil* means crude oil or petroleum or a fuel derived from crude oil or petroleum, including distillate and residual oil, solid oil-derived fuel (e.g., petroleum coke) and gases derived from solid oil-derived fuels (not meeting the definition of natural gas).

*Oil-fired electric utility steam generating unit* means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that is not a coal-fired electric utility steam generating unit and that burns oil for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

*Particulate matter* or *PM* means any finely divided solid material as measured by the test methods specified under this subpart, or an alternative method.

*Pulverized coal (PC) boiler* means an EGU in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the EGU where it is fired in suspension.

*Residual oil* means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by ASTM Method D396-10, “Standard Specification for Fuel Oils” (incorporated by reference, see 40 CFR 63.14).

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Shutdown* means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use), or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler.

*Startup* means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use).

*Stationary combustion turbine* means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, the combustion turbine portion of any stationary cogeneration cycle combustion system, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. Stationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function. Stationary combustion turbines do not include turbines located at a research or laboratory facility, if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility.

*Steam generating unit* means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with integrated gasification combined cycle gas turbines; nuclear steam generators are not included).

*Stoker* means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit undergrate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. There are two general types of stokers: underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers.

*Subbituminous coal* means coal that is classified as subbituminous A, B, or C according to ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see 40 CFR 63.14).

*Unit designed for coal ≥ 8,300 Btu/lb subcategory* means any coal-fired EGU that is not a coal-fired EGU in the “unit designed for low rank virgin coal” subcategory.

*Unit designed for low rank virgin coal subcategory* means any coal-fired EGU that is designed to burn and that is burning nonagglomerating virgin coal having a calorific value (moist, mineral matter-free basis) of less than 19,305 kJ/kg (8,300 Btu/lb) that is constructed and operates at or near the mine that produces such coal.

*Unit designed to burn solid oil-derived fuel subcategory* means any oil-fired EGU that burns solid oil-derived fuel.

*Voluntary consensus standards or VCS* mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards (VDI). The types of standards that are not considered VCS are standards developed by: the U.S. states, e.g., California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within an EPA rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-VCS methods.

*Wet flue gas desulfurization technology,* or *wet FGD, or wet scrubber* means any add-on air pollution control device that is located downstream of the steam generating unit that mixes an aqueous stream or slurry with the exhaust gases from an EGU to control emissions of PM and/or to absorb and neutralize acid gases, such as SO2 and HCl.

*Work practice standard* means any design, equipment, work practice, or operational standard, or combination thereof, which is promulgated pursuant to CAA section 112(h).